THE BUILDER

Incorporating

ARCHITECTURE & THE BRITISH ARCHITECT

THE BUILDER HOUSE, CATHERINE STREET, ALDWYCH, LONDON, W.C.2. Telephones : Temple Bar 6251-2-3-4

VOL. CLXXXI NOVEMBER 2, 1951 No. 5672

PRINCIPAL CONTENTS

ARTICLES	PAGE
END OF THE MODERN MOVEMENT IN ARCHITECTURE : A B.B.C. Talk	578
BOOK	580
COMPETITION NEWS	580
CORRESPONDENCE	589
HOUSING AND THE BUILDING INDUSTRY : National President's View	590
LOW-COST HOUSING IN THE YORKSHIRE AREA	591
BUILDING SOCIETIES AND HOUSING	593
PUBLIC INFLUENCES ON PLANNING	594
"PLANNING INFLUENCES YOUNG OFFENDERS"	595
THE DISTRIBUTION OF LAND	596
BUILDERS' PRICES	596
CONTEMPORARY FURNITURE	597
EDUCATION FOR INDUSTRY	598
WOLVERHAMPTON HOUSING	598
BUILDING MANPOWER	598
NEWS IN BRIEF	599
LAW REPORTS	600
NATURAL LIGHTING	600
PRICES CURRENT OF MATERIALS	601
TRADE NEWS	602
RATES OF WAGES	603
THE SCOTTISH BUILDER	604

ILLUSTRATIONS

FISHERMEN'S COTTAGES, DUNBAR : By Basil Spence and Partners	581
"THE PRINCE OF WALES," BRIXTON : By Vincent Burr	586
HOLME MOSS TELEVISION STATION : Elevations by Wimperis, Simpson, Guthrie and Fyffe	588

THIS WEEK'S NEWS

MR. HAROLD MACMILLAN is to be Minister of Housing and Local Government, and as such will have responsibility for co-ordinating and extending house building. p. 576

THE GOVERNMENT have appointed Mr. Hugh Casson to report (in conjunction with Mr. Robert Matthew and Mr. L. A. Huddart) on the immediate future of the South Bank site. p. 576

IF a really live and profitable movement in architecture is to develop, then many of the most cherished illusions of the modern movement will have to go overboard ; that frenzied rejection of the past, for instance, that ridiculous attitude of having absolutely no connection with the period next door, which has had such disastrous effects on architectural education. This was the view of Mr. Osbert Lancaster when he spoke of the End of the Modern Movement in Architecture in a recent broadcast talk in the third programme. p. 578

BUILDERS WELCOMED the return of a Government which realised that the building industry wanted an expanding programme and less interference, said Mr. Stephen Hudson, president of the N.F.B.T.E., at the annual dinner of the London Association of Builders' Foremen and Clerks' of Works on Tuesday. p. 590

IN A REPORT on Training for Industry, a team which has visited the U.S.A. comments : "A notable point about the American system is the almost complete disregard of the upper age-limit. . . . The team feels strongly that the question of age-limits and periods of training for apprentices should be very carefully examined by all industries." p. 598

A NEW DEAL FOR HOUSING

THE return to power of the Conservative party should mean a new deal for housing. Of the wisdom of naming a figure of 300,000 houses "to be reached so soon as rearmament allows" there must be doubts, especially as many Conservative candidates have been so ill-advised as to mention the figure without the proviso. There can be no doubt, however, of the Conservatives' dissatisfaction with present housing output and with the alarming cost of its provision, and we may expect with confidence the introduction of measures designed to increase the number of units of accommodation and to cut the inordinate erection time and the present level of costs and rents.

Four principal conditions must be present if these aims are to be achieved. First, an expanding programme of building not subject to arbitrary cuts ; if housing is to be a priority, let it be treated as such. Second, there must be an adequate and expanding supply of materials. Third, there must be greater efficiency in management and greater productivity by labour. And, fourth, the energy and initiative of the housebuilding industry must be fully utilised. These factors are closely interrelated ; let us look at them in greater detail.

While it is accepted that expansion of the housing programme is dependent on availability of materials, the view has also been expressed that the materials supply situation will not improve until the housing programme has been increased. Little progress will be made by contemplating this problem of the chicken and the egg ; we believe that the first step must be to establish, in terms which inspire confidence, that the present programme of 200,000 houses annually is regarded as the minimum, not as the maximum we can build. Once confidence in a policy of expansion is communicated, then, given adequate coal, the materials situation will improve and with it the housebuilding industry can function and productivity rise. It should be plainly stated, however, that housebuilders, whose particular contribution to the provision of homes is based upon specialised techniques and quick turnover, can make little impression on the size of the problem if their men see that the work is short of materials or if they do not know where the next job is coming from.

For these reasons it would be unwise to expect immediately any pronouncement from the new Government more radical than a declaration to implement an expanding programme of housebuilding (a step which must be considered in relation to the volume of work necessary to existing property now falling into disrepair) and to secure that a larger proportion of licences is granted to private developers. In this latter connection we are trusting that some upper limit based on floor area will be retained ; more small houses and not fewer large ones are the need. The eventual aim—that local authorities should restrict their endeavours to a vigorous policy of slum clearance and to rehousing the lowest paid families—is one which, however desirable as an aim, cannot yet be. In the meantime a fair division of available resources is required between houses for the lower-income group and those who are ready and willing to buy their own homes.

For the immediate future the Government, we suggest, must devote itself to two main objectives : one, the stimulation of the materials manufacturing industries, the other, to consider afresh the means by which more units of accommodation may be got out of the existing pool of materials. Under pressure from local housing authorities, some planning concessions were made by Mr. Dalton's Ministry in Circular 38/51. Overdue though they were, they did not go far enough. In matters of state-aided housing the plain fact is that we are living beyond our means ; the test now is not what we would like but what we can afford.

There is no advocacy here of any depreciation of real standards ; as the pilot block of four terrace houses erected at Northampton to the winning design in our Low-cost

Housing Competition will show when it is opened next week, much can be done to gain more homes from the same amount of materials and labour by a fresh approach to the planning of living space, by a simplification of plan, fittings, plumbing and drainage, and by the reduction of bedroom sizes to a workable minimum. This is something of which housing opinion has long been aware. More two-bedroom and Duplex houses are other means of augmenting the total of units.

Irrespective of the means by which more homes are provided, one matter deserves the closest attention—the maintenance of design and constructional standards. Whatever charges have been laid against Socialist housing policy, there is no question that the qualities of visual appearance, layout and construction have on the whole been high. In the future programme, architects and town-planners must collaborate with the housebuilder, each in his proper sphere. Proper constructional standards must be maintained. If this can be secured by voluntary agreement—for example, through the National House Builders' Registration scheme—then so much the better. We cannot afford again the uncontrolled development which did so much to wreck the outskirts of our towns and villages between the wars. The quality of public taste is inevitably rising and we shall hope that Mr. Macmillan, the new Minister for Housing and Local Government (whose appointment will be regarded with much satisfaction), will see to it that this process is maintained in housing through the proper use of all sides of the building industry.

Finally, in working towards the desired end of providing a separate home for every family that wants one, patience will be needed. So long as materials are short, controls will be needed. A new deal is, we shall hope, coming, but the early cards must be dealt slowly and are likely to be small. From the public's point of view, too, it must be remembered that by no means of improved organisation or plan variations can the building industry rapidly produce without the materials the extra 100,000 houses annually which have so lightly been promised in its name. That figure can eventually be reached, however, and even surpassed under an energetic administration which is determined, in its own words, to give housing the priority among the social services.

NOTES & NEWS

THE SOUTH BANK SITE

ANXIETY that the South Bank site might, despite all protestations to the contrary, be allowed to lapse back into a state of squalor will be eased to some extent by the news that the Government have appointed Mr. Hugh Casson, F.R.I.B.A., R.D.I., who was director of architecture of the Festival of Britain, to advise them on the immediate future of the site. He will study the matter with Mr. R. H. Matthew, A.R.I.B.A., architect to the London County Council, and Mr. L. A. Huddart, chief officer of the council's parks department. They are expected to make their report, which will be presented jointly to the L.C.C. and to the Festival of Britain office, in about 10 days' time.

Their terms of reference are to advise how the existing assets of the South Bank site may be put to the best use as an interim stage in the development of the area by the London County Council. Demolition work on the exhibition site, except for the dismantling of certain unimportant structures, is being held up until the report is made.

A measure of the public interest in the future of the site is seen in the action of *The Sunday Times* in organising the competition, with a first prize of £100, for the best answer to the question "What would you do with the South Bank site?" The rules of the competition, which is not confined to professional architects, artists or draughtsmen, have been set by Mr. Casson, who is also to be one of the judges. The other judges are Sir Alan Herbert and Sir Stephen Tallents. Closing date is November 27.

MR. HUGH CASSON AN R.D.I.

THE COUNCIL of the Royal Society of Arts has made a special appointment in connection with the Festival of Britain to the distinction of Royal Designer for Industry. The new R.D.I. is Mr. Hugh Casson, M.A., F.R.I.B.A., F.S.I.A., who was director of architecture at the South Bank Exhibition and was personally responsible for the layout of the downstream section and the design of the 1851 pavilion.

HISTORIC BUILDINGS

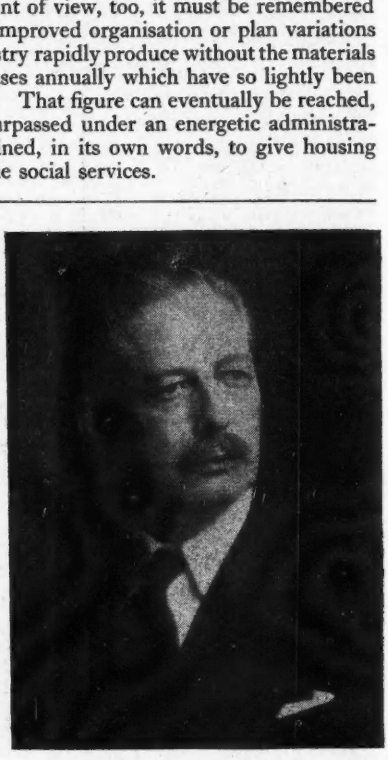
PROFESSOR W. G. HOLFORD, F.R.I.B.A., M.T.P.I., has accepted the invitation of the Minister of Housing and Local Government to become chairman of the Minister's Advisory Committee on Buildings of Special Architectural or Historic Interest. Professor Holford, who has been a member of the Committee since its appointment in 1945, will succeed the late Sir Eric Maclagan, as chairman.

HOUSING IN SINGAPORE

FROM SINGAPORE, where the mass of the population still dwell in filthy slums, the news from the Singapore Improvement Trust that last year was a period of "solid achievement," principally in the form of new housing development, is most welcome. The Island's housing problem is not easing, however. The population is well over a million, and growing at the rate of 36,000 a year. The present housing programme is dealing with only half the natural increase.

The brighter side of the Trust's report for 1950 states that during the year the rate of housing development in Singapore was speeded up both by the official bodies and by private owners. The Trust completed the erection of 855 flats, 236 artisan's quarters and 43 shops. A further 1,342 flats, 152 artisan's quarters and 130 shops were under construction at the end of the year. The total value of housing work carried out during the year amounted to about eight million dollars, compared with four million dollars in 1949.

Each estate of artisans' quarters is provided with its own self-contained shopping centre of prefabricated shops.



MR. HAROLD MACMILLAN, who has been appointed Minister of Housing and Local Government in the new Conservative Government. His primary task will be to forward the housing programme. Mr. Macmillan, who is 57, was Parliamentary Secretary, Ministry of Supply, 1940-42.

COMING EVENTS

MONDAY, NOVEMBER 5

SOCIETY OF ENGINEERS.—"Oilfield Operations," by Mr. L. H. J. Hersch. Geological Society, Burlington House, W.1 (east end entrance, Piccadilly). 5.30 p.m.

R.I.C.S. (JUNIOR ORGANISATION).—Mock town planning appeal and presentation by Mr. W. H. Scanlan, F.R.I.C.S., of the Ryde Memorial Prize. 12, Great George-street, S.W.1. 6 p.m.

TUESDAY, NOVEMBER 6

R.I.B.A.—President's inaugural address and presentation of London Architecture Bronze Medal to Messrs. A. J. P. Powell, and J. H. Moya, AA.R.I.B.A. 66, Portland-place, W.1. 6 p.m.

ROYAL INSTITUTION.—"Design in Furniture," by Mr. John Gloag, Hon. A.R.I.B.A., Hon. F.S.I.A. 21, Albemarle-street, W.1. 5.15 p.m.

WEDNESDAY, NOVEMBER 7

INSTITUTE OF ARBITRATORS AND L.M.B.A.—Practice Arbitration. 66, Portland-place, W.1. 6 p.m.

THURSDAY, NOVEMBER 8

"THE BUILDER" LOW-COST HOUSES.—Opening of block of four terrace houses, Winchester-road, Delapre, Northampton. 11 a.m.

TOWN AND COUNTRY PLANNING ASSOCIATION (STUDENTS' PLANNING GROUP).—"The Future of London," by Mr. Arthur Ling, A.R.I.B.A., A.M.T.P.I. 28, King-street, Covent Garden, W.C.2. 6.15 p.m.

FEDERATION OF MASTER BUILDERS.—Exhibition of models entered for the Building Trades Apprentices Festival Competition. Conference Chamber, County Hall, S.E.1. Private view, 11.30 a.m. (by special invitation); public viewing during the afternoon.

ENGINEERS GUILD, LTD., METROPOLITAN BRANCH.—"Is Engineering a Profession?" by Mr. C. V. H. Garnett, M.Inst.C.E., A.M.I.Mech.E. 2, Savoy Hill, W.C.2. 6 p.m.

Shops have also been provided on the ground floor of a number of blocks of flats in positions suitable for commerce.

Although, as yet, Singapore has no overall development plan, Sir George Pepler, who is planning adviser to the Government of Singapore, has presented a preliminary report to the Government on the next steps to be taken in the planning programme and has advised on the staff required to prepare the diagnostic survey.

FRANK YERBURY HONOURED

HIS FRIENDS, and they are legion, will congratulate Mr. F. R. Yerbury on being created a Knight of the Order of the Dannebrog by the King of Denmark in recognition of his work for the improvement of cultural relations between Denmark and Great Britain.

NELSON'S WEST INDIAN QUARTERS

HISTORIC NAVAL BUILDINGS at English Harbour, Antigua (Leeward Islands)—one of Britain's major Caribbean refitting depots during the eighteenth-century wars against the French—are "in a deplorable state of preservation." Woodwork, floors, roofs, doors and windows have collapsed due to rot and hurricane.

The buildings include the Paint and Tar Store, Master Shipwright's House; Paymaster's Office and Nelson's famous "Admiral's House." These dilapidated relics of British naval power are now exhibited to American tourists at a charge of 6d. The cost of restoring this group of buildings might be between £25,000 and £60,000.

These are some of the observations made in a Report on Buildings of Architectural and Historic Interest in the British West Indies by Mr. A. W. Acworth (hon. Acting Secretary of the Georgian Group) issued for the Colonial Office by the Stationery Office, price 4s. (Colonial Research Studies No. 2).

Of Georgetown, capital of British Guiana, the report states that it is not only "beautifully planned," but is also "built up entirely of very large greenheart buildings, all in the classical manner and all having beautiful proportions and detail, all painted white—this is probably the most complete early nineteenth-century town in the world."

DOMESTIC HEATING IN U.S.A.

ENGLISHMEN who visit the United States in winter are apt to come away with the impression that that country's domestic heating methods are almost overwhelmingly efficient. That there is great scope for improvement in America in this sphere is shown by the fact that a scheme is afoot there to design flats for fuel research purposes to give a reduction in first, operating and heating costs of from 20 to 30 per cent.

For this purpose the U.S. Government Housing and Home Finance Agency have provided the Illinois Institute of Technology with $50,000, of which half has been allotted to the New York firm of Howard T. Fisher and Associates, architects, industrial designers and engineers.

In a letter to Lt.-Col. S. F. Newcombe, D.S.O., a British authority on domestic heating problems, Mr. Robert L. Davison, of the above firm, says "this will give us an opportunity to try out ideas of background heating and temporary radiant heat, etc. One of the greatest sources of waste in rental housing is the waste of heat. I shall keep you informed as we get under way." Mr. Davison was the author of articles on the economics of housing in the February, 1950, and February and March, 1951, issues of the American "Architectural Forum."

It is interesting to note that the estimated savings in costs will be possible only as this particular project will not have to conform with America's "antiquated building codes or other regulations." Are they so much in advance of us in America as we had thought?

R.I.B.A. RESIGNATION

THE R.I.B.A. Council has accepted with regret the resignation of Mr. R. W M. Orme from the appointment of Assistant-Secretary (Public Relations).

VICTORIAN ARCHITECTURE

MR. JOHN BETJEMAN is to give a lecture on Victorian Architecture on Monday, November 5, at the Forum Club. Tickets 10s. (reserved), or 5s. (unreserved) from Mrs. H. J. W. Lankshear, 77, Mount View-road, N.4. Proceeds will go to the donation fund of the Shoreditch, Hackney and Highbury Housing Association.

DEWSBURY BORO' ARCHITECT

APPLICATIONS are invited from the County Borough of Dewsbury for the post of Borough Architect and Buildings Surveyor. Salary, £1,150 per annum, rising to £1,350. Housing accommodation will be offered. Details advertised elsewhere in this issue.

FROM "THE BUILDER" OF 1851

Saturday, November 1, 1851

AID FOR THE ART-ARTISAN SCHOOLS.—Amongst the numerous memorials presented to the Royal Commissioners of the Exhibition, relative to the disposal of the surplus funds, one is from the Committee for establishing Suburban Art-Artisan Schools, praying for assistance to enable them to carry out their entire scheme of schools in different districts of the metropolis. The success which has attended their present school in Camden Town, where, since May 1, 1850, 550 men and lads have received art instruction, and where at the present moment there are above 100 students, undoubtedly gives them a claim for support, as the introducers of the system of *artisan* instruction in drawing and modelling into this country. Such schools are among the legitimate objects on which the surplus funds of the Great Exhibition should be bestowed.

GREEN STREET GREEN COUNTY PRIMARY SCHOOL, ORPINGTON, FOR KENT CC

A perspective drawing of the proposed new County primary school at Green Street Green, Orpington. The school is to accommodate 280 children, and the construction is almost entirely prefabricated, including the use of Holoplast as a weight-bearing material throughout. An unusual feature is the adoption of a universal ceiling height of 8 ft., with the exception of the assembly hall, which rises to 16 ft.; to achieve the necessary daylight factors roof lighting has been extensively employed. The architects were Messrs. Cable and Pite, F./A.R.I.B.A., in collaboration with Mr. S. H. Loweth, F.S.A., F.R.I.B.A., Kent County Architect.

End of the Modern Movement in Architecture

A Talk by Mr. Osbert Lancaster

The growth of the modern movement in architecture, from its earliest beginnings to the present day which may, in his opinion, mark its end, was the subject of a recent broadcast talk in the B.B.C.'s Third Programme by Mr. Osbert Lancaster, Hon. A.R.I.B.A., a slightly abridged edition of which we reproduce below. Mr. Lancaster said :

MODERN is probably one of the most ambiguous and certainly one of the most variously employed words in the English language. Unlike most adjectives, so far from defining or expanding the meaning of the noun to which it is attached, its own meaning is entirely governed by the word which follows it.

Thus when we speak of " the modern woman " we summon up a vision of some South Kensington Hedda Gabler, all shirt-waist and pince-nez, peddling madly round Battersea Park thinking about Mrs. Sidney Webb. If, on the other hand, we say " modern girl " this vision is replaced by a tubular siren showing acres of very shiny pink-silk stockings rhythmically jigging to the strains of, " Yes, Sir, that's my baby." When employed in connection with art or architecture modern retains all its period flavour and may mean anything except contemporary.

So overburdened has this unfortunate adjective become, that we have been forced to invent derivatives such as " modernistic," a term of contempt correctly employed to describe a type of all-too-popular decoration out of early cubism by Metro-Goldwyn-Mayer ; or borrowing from abroad, to acclimatise a word as *modernismus* in an effort to distinguish English works which display a perhaps imperfect understanding of the principles enunciated at the Bauhaus. But to what precisely do we refer when we speak of the " modern movement "?

Thanks largely to the exhaustive researches of Mr. Morton Shand and Professor Pevsner, we know quite well when and how the modern movement started, and can follow the course of its early development. What, however, remains in doubt is exactly where we, and it, stand to-day. Does 1951 mark the final triumphant flowering, or just a further stage on the upward march, or the end of the whole thing and the beginning of something quite new? Is Mr. Hugh Casson, for example, an Alberti or a Bernini ? The rest of my remarks here will be largely directed towards encouraging the last assumption.

AN HISTORICAL PARALLEL

It was generally proclaimed by the fathers of the modern movement that it represented a complete break with the past, and in so far as it was directed towards the abolition of " style," as generally understood, it could not possibly be compared with any other historical architectural school. This contention, which is, of course, commonly made by all artistic pioneers at all periods, we will treat with the contempt it deserves, and draw what I hope may be a helpful parallel with the history of the Gothic revival.

Both movements started with what one may perhaps describe as a romantic fun-and-games stage, represented in the case of the Gothic revival by Strawberry Hill and Fonthill, and in the case of the modern movement by such works as the interior of Maxim's restaurant in Paris and Horta's house in the Rue de Turin. Then, after a short period of settling down, when the early exuberance had slightly diminished, represented in the one case by the Commissioners' churches and in the other by the buildings of Voysey or Berlage, comes the doctrinaire period, all manifestos and witch-hunts. Pugin dismisses all the work of his contemporaries and predecessors as trivial, worthless, and based on a complete misunderstanding of the principles involved, and, assisted by the Camden Society, lays down the new law ; Gropius and Loos do the same for *art nouveau* and the Jugendstil and the work of such men as Van de Velde. And in both cases it is at this moment that the movement, hitherto purely architectural, tends to become involved in extra-curricular activities—in the one case tractarianism, in the other social planning. Then comes the high summer in both cases marked by the emergence of the twin figures of the prophet and publicist.

Here, however, ensues a curious reversal of roles, for in the one case the prophet exerted his influence through the medium of words and in the other chiefly by practical example, but, nevertheless, the points in common between Ruskin and Frank Lloyd Wright are fundamental, the differences largely superficial. Both men, it seems to me, tower head and shoulders above all their fellows ; the thoughts and outlook of both are deeply coloured by an evangelical background ; and both, it must be admitted, exhibit aspects at which it is possible for trivial minds (which at some time or other includes most of us) to laugh. In the case of the publicists, the similarity between the roles played by Sir Gilbert Scott and Le Corbusier, although perhaps less immediately striking, is none the less considerable. Sir Gilbert, it is true, built a great deal more than Le Corbusier and wrote a good deal less, but both men were in their own ways superb showmen and knew no equal in the handling of clients, and probably did more than any of their contemporaries not only to put their respective movements in the limelight, but keep them there.

To all intents and purposes the Gothic revival was over by the 'seventies. The event which may be held definitely to mark the end was Norman Shaw's experiment with Queen Anne ; a deviation all the more important in that Shaw came from the Street stable, and in the history of the later Gothic revival the office of G. E. Street played a role comparable to that of the Bauhaus in the modern movement. Shaw's heresy, of course, provoked a storm of criticism from the stern, unbending Goths, and the curious thing is that the slight note of hysteria there detectable strangely resembles that which characterises the weighty condemnation in strong, if recently acquired, American accents delivered against that latter-day deviation from the modern movement known, for reasons that are not immediately obvious, as the new empiricism.

But similarities in the course of the development of two movements are not themselves, even if convincing, sufficient to indicate that they will necessarily end at the same stage or in the same way. For that, it is necessary to examine rather more closely the fundamental doctrines on which each was based. There one is at once struck by a strange fact ; it is not surprising that these should be totally different but it is curious that they should be so neatly antithetical.

SUSPECT THEORIES

At all times and in all places the role of the architect lies between that of the plumber and the sculptor ; but seldom mid-way. If, like the majority of nineteenth-century architects, he is an æsthetic snob, he will get as close to the sculptor as he can ; if, like most contemporary architects, he is an inverted snob, he will suck up to the plumber. Thus, roughly speaking, most of the Gothic revivalists and of the modern movement boys are equidistant from the centre which makes their conflicting theories almost exactly complementary, and, in my view, equally suspect. The Victorian architect, reacting strongly against what to him, and almost all his contemporaries, was the soulless barrenness of late eighteenth-century and Regency architecture, proclaimed the doctrine of salvation through decoration. His immediate successors, not unnaturally surfeited with Early English capitals, terra-cotta enrichments, and neo-Baroque swags, pronounced decoration anathema and advocated the much-needed abolition of ornament and concentration on the beauty of form. However, what tended to get overlooked in the excitement was the fact that simplicity is not enough ; that whereas an ill-designed building, or teapot, or page of type may be rendered unbearably vulgar by applied decoration, in its total absence it is revealed as devastatingly mean.

But apart from these theoretical over-simplifications the most striking fact in common between the two movements was their faults, totally dissimilar as were the products. Of these one of the most important was an ineradicable tendency to give a general validity to theories that were by their very nature particular. Thus the Goths maintained, perfectly correctly given the liturgical requirements of the Catholic faith and the prevailing intellectual climate of their time, that Gothic was the only style for churches. Where they went wildly wrong was to advance from this premise the untenable proposition that Gothic was the only style for railway stations. Similarly the moderns were 100 per cent. correct in maintaining that crenellations and lancets were out of place on power stations in which true beauty was to be obtained only

by the revelation of function through form. When they went on to apply this theory to all architecture they were still perfectly justified on paper, but almost never in practice, for the very good reason that whereas the function of a factory, or a power station, or a hospital is exactly ascertainable, there exists a whole class of buildings, including domestic, where this is only partially true, and in all monumental architecture function can be defined only in the very vaguest terms.

A SCHISM REVEALED

It is in their varying reactions to this last awkward fact that the leaders of the movement reveal the existence of a schism. If one may judge from the results of the symposium on monumentality recently held by the *Architectural Review* the purists side-step the whole question by taking refuge in sociology and saying that the very idea of monumental architecture is ridiculous, uncontemporary, and not to be encouraged; an attitude which in view of the fact that a very large proportion of the building public, including both banking corporations and commissars alike, is still crazy for monuments, and whopping big ones, is not helpful. Far more praiseworthy is the reaction of those who admit the need and go gallantly ahead in an effort to meet it, even though, as at Coventry, that effort ends in almost total failure.

Let me say at once that this failure is not in my view to be laid at the door of Mr. Basil Spence. Rather it is attributable to those responsible for organising the competition, who seemed to have but the vaguest idea of what they really wanted or what a cathedral is, an ignorance the more astonishing as the purpose and nature of a cathedral have so recently been admirably defined by the highest authority in the Archbishop of York's book on the Church of England. If they wanted a building which would combine the advantages of a glorified parish hall blown up to meet diocesan requirements with the popular appeal of a brand-new Odeon, they should have said so and not called it a cathedral. But to call in an architect trained in the functional tradition and not to have made it clear that in so far as cathedrals are concerned function is liturgy and liturgy is function was to invite disaster. In this bland denial of the very tenets of the functional faith the wheel has come full circle and Coventry Cathedral seems likely to be the St. Pancras railway station of the modern movement.

But it is in their respective attitudes to the machine that both movements proved finally inadequate. The Goths invited disaster through fear, which so inhibited them that they were quite unable to take advantage of the mechanical revolution of their time, and finally led them into the cosy wilderness of arts and crafts. The attitude of their successors was more complicated. On the surface it was coloured by a mystique of the machine which found its earliest and dottiest expression in Marinetti and the futurist manifesto and was later rationalised by such men as Professor Giedion. But underneath, deep down in the collective subconscious of the movement, there remained profound misgiving lest the price to be paid for all the manifest advantages to the consumer of "mechanisation taking command" prove disastrously high in terms of the spiritual well-being of the producer.

Moreover to speak solely of failure is unjust and unhelpful for the end of artistic

The Octagon, one of the Assembly Rooms in Milsom-street, Bath, was restored after war damage and reopened as a feature of the City's Festival Celebrations. Designed by Thomas Lightoler, the Octagon was originally a chapel, and was opened in 1767. The unusual style contrasted strongly with the traditional idea of a church yet conveyed the dignified effect required in the 18th century. Falling out of fashion in Victorian days, the Octagon was last used as a chapel in 1895, and in the recent war it served as a Food Office. In its present form the building is to be used for exhibitions and art displays. The work of restoration was carried out by the Bath Architects' Group, under the guidance of Mr. Ernest F. Tew, A.R.I.B.A., Miss Molly Taylor, F.R.I.B.A., and Messrs. T. W. Snailum, F.R.I.B.A., C. A. C. Cole, A.R.I.B.A., Walter Ison, F.S.A., and R. W. M. Wright, director, Victoria Art Gallery and Municipal Libraries.

movements is not commonly marked by failure but by the achievement of unintended success, which provides a springboard for fresh leaps. An extreme example of what I have in mind, drawn from modern painting, is afforded by le Douanier Rousseau. He, as we know from his correspondence, aimed at painting like Bougereau but happily came nowhere near his avowed intention. But in the process he produced a number of masterpieces of a quite different kind. Without for one moment attributing to Hugh Casson and his colleagues a comparable degree of naivety, the view that the modern movement has now reached its term is far more plausibly supported by the triumphs of the South Bank than by the inadequacies of Coventry.

THE SOUTH BANK

Here a hand-picked selection of the younger exponents of the modern movement were given a free hand to do what they liked without the necessity of making even a formal observance to theory. Indeed, it would have been impossible for them to do so even had they so wished, for the purpose for which exhibition buildings must, one supposes, be fit, is to exhibit, and one of the most enjoyable things about the South Bank exhibition was that there was virtually nothing of the smallest interest *to* exhibit. Thus one could enjoy the wonderful Piranesi-like drama of the interior of the Dome of Discovery, without bothering one's head, any more than one suspects did Mr. Tubbs, as to whether this imposing arrangement of ramps and moving staircases was, in fact, the best or most functional method of displaying all the pseudo-scientific bric-à-brac with which it appeared rather hurriedly to have been filled. Similarly in other pavilions, where the exhibits ranged in exotic fantasy from a row of cows being milked to a London omnibus, one was able undistracted to concentrate on the architectural qualities of the buildings themselves. As one did so one gradually became aware in many individual cases, but not all, and in the general effect of the whole ensemble, of something quite new—of a quickening wind stirring the grim, bare branches of modernism and a wind, moreover, that was certainly not blowing from the direction of Massachusetts.

Is this new spirit—which I shall not attempt to define, for definition and analysis have been the curse of modern architecture—the first swallow of a new summer, or just a belated straggler from the old autumn of the picturesque, as certain of the more austere upholders of the international style would have us believe? It is at this stage quite impossible to say, but one thing is certain. If a really live and profitable movement is to develop from this beginning, then many of the most cherished illusions of the modern movement will have to go overboard; that frenzied rejection of the past, for instance, that ridiculous attitude of having absolutely no connection with the period next door, which has had such disastrous effects on architectural education. Then that inhibiting fear of the *cliché* must at all costs be overcome, and it must be realised that a good supply of sound, generally acceptable *clichés* is one of modern architecture's most urgent requirements. That whereas the success of eighteenth-century architecture, for example, as of eighteenth-century poetry, lay very largely in just this invention of *clichés* that could safely be entrusted to local builders to exploit without becoming wearisome, the failure of the modern movement wholly to get clear of the coterie stage was in a very large measure due to the fact that the best they could produce in the way of *clichés* was a window that turned a corner and a couple of pavement lights. Above all, the modern architect must at all costs come down from his functional tower of reinforced ivory and realise that a public which has for years been asking for half-timbered bread is not going suddenly to be satisfied with a cantilevered stone.

If, in fact, we are witnessing a new departure, then it would be churlish to conclude without paying a tribute to the stern, if sometimes inhibiting, discipline which the modern movement imposed. If one thinks as I do that it always remained inextricably confused between ends and means, it nevertheless fulfilled an essential task. As with abstract painting it was not, as some might think, a blind alley but a necessary diversion, and those who passed through it are likely to have travelled considerably further than those who stuck to the main road.

BOOK

TUDOR RENAISSANCE. By James Lees-Milne. Pp. viii, 152. Illustrated. (B. T. Batsford, Ltd.) 21s. net.

THE FIRST THOUGHT of any tolerably well-read architect on seeing this book may well be that the period with which it deals has already been covered adequately in numerous volumes by Gotch, Blomfield, Garner and Stratton, published between 1897 and 1911. One hardly expects that much more remains to be discovered or said on so familiar a theme; moreover, the period in question is momentarily out of fashion, though Mr. Lees-Milne in his excellent epilogue solemnly warns us that our likes and dislikes "are, of course, from an aesthetic point of view, extremely mercurial and unsound, and not based on sincere judgment." Too true, and he is justified in quoting, as his concluding exordium, the wise words of Geoffrey Scott, that "whatever has once genuinely pleased is likely to be again found pleasing."

As one reads through the closely packed pages of this very learned and finely illustrated book, one finds that it does fill a real gap in our knowledge, for it deals in great detail with all the obscure and diverse currents of taste that came from overseas to influence our national architecture between the reigns of Henry VII and James I. Gotch and Blomfield did, indeed, devote whole chapters to those foreign influences—Italian, French, Flemish and German—but neither writer treated this aspect of the subject so thoroughly or so convincingly as Mr. Lees-Milne.

On the other hand, the publication of his new book does not in the least degree render their work obsolete or superfluous, for it includes hardly any plans, and says very little about the smaller domestic buildings which continued to be erected all over England right up to the advent of Inigo Jones. He is concerned with the introduction of Renaissance ideas and details and, as he properly remarks, that movement was mainly felt at first within the neighbourhood of the capital and the Court.

In writing about planning, he considers that the symbolical origin of the "E" plan in Elizabethan times is "not improbable" in certain cases. He disagrees with Gotch on the authorship of the Salisbury chantry chapel at Christchurch, Hants. The most valuable part of the book is his study of the leading craftsmen, master-masons, surveyors and quasi-architects of the period. Robert Lyminge, John Shute, the Smythsons and John Thorpe are identified far more clearly than ever before. Sir William Sharington's work at Lacock Abbey is carefully examined, and his connection with Longleat, Dudley Castle, Apethorpe, Sudeley Castle and Old Somerset House is explained.

Buildings now assigned to Robert Smythson include Hardwick Hall, Longleat, Wollaton, Wardour Old Castle, Longford Castle, the Middle Temple Hall and, possibly, Ham House—this last a surprise. John Thorpe is judged to be a draughtsman "doodling away in his sketchbook" rather than a designer. John of Padua vanishes into fairly thin air, and Hans Holbein is denied credit for the "Holbein Gate" in old Whitehall.

Other notable passages deal with the use of foreign pattern-books at all stages; with the amazing temporary structures erected on the Field of the Cloth of Gold in 1520 and their influence upon more permanent architecture; with Wolsey as a patron and a builder; with the building accounts of Longleat, Burleigh, Hatfield and Blickling. The various decorative crafts are fully treated, as is the art of painting.

The illustrations include some rare contemporary engravings (e.g., of Nonesuch Palace and of Audley End) as well as a fine series of photographs and some coloured plates.

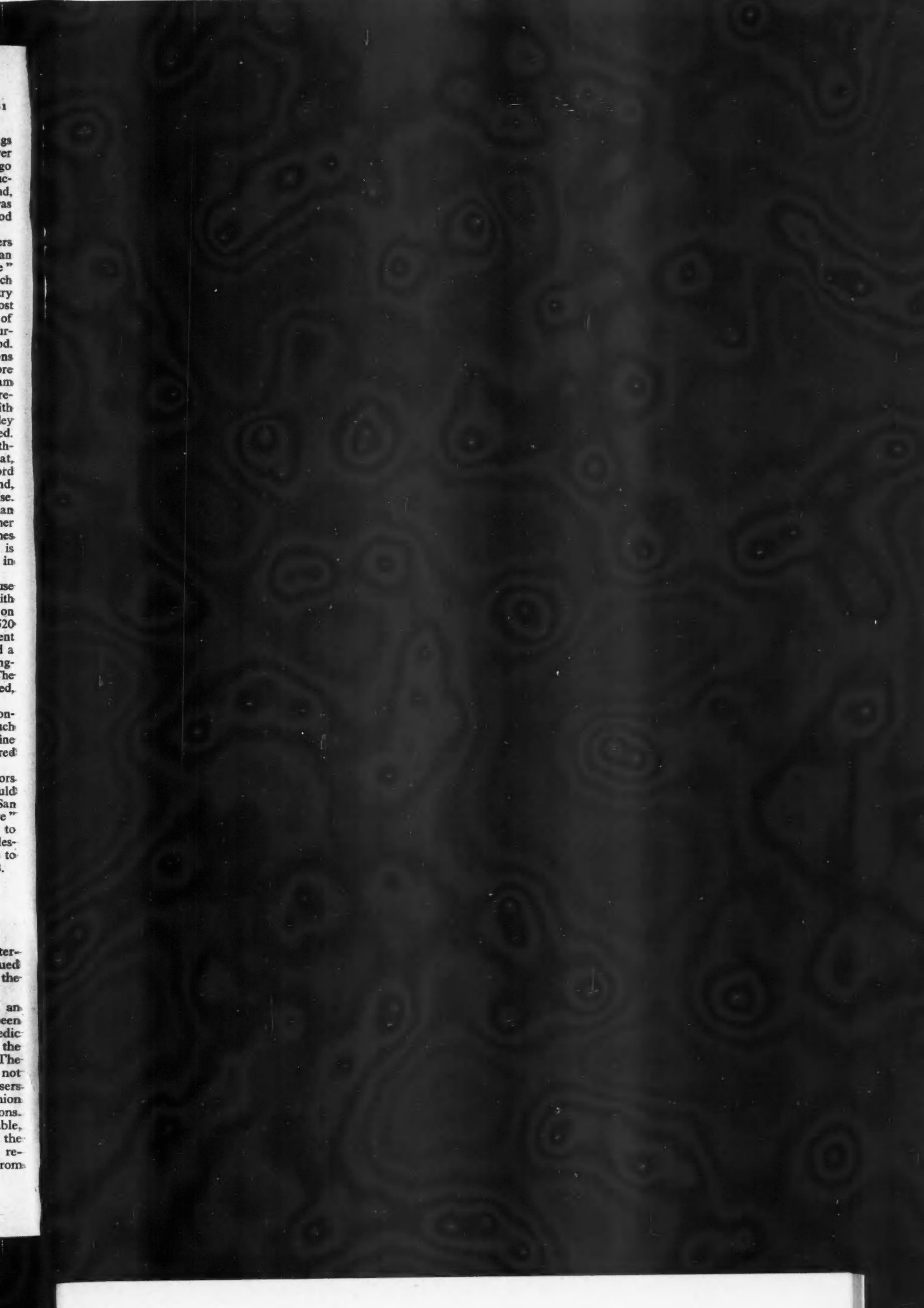
In a second edition, a few printers' errors should be corrected: "Milennium" should be corrected to "millennium" on p. 1; "San Gallen" to "St. Gallen," p. 4; "gonfaliere" to "gonfalionere," p. 31; "Uffizzi" to "Uffizi," p. 66; "Ribbesdale" to "Ribblesdale," p. 129; and on p. 115 the reference to Fig. 101 should be to p. 125. M. S. B.

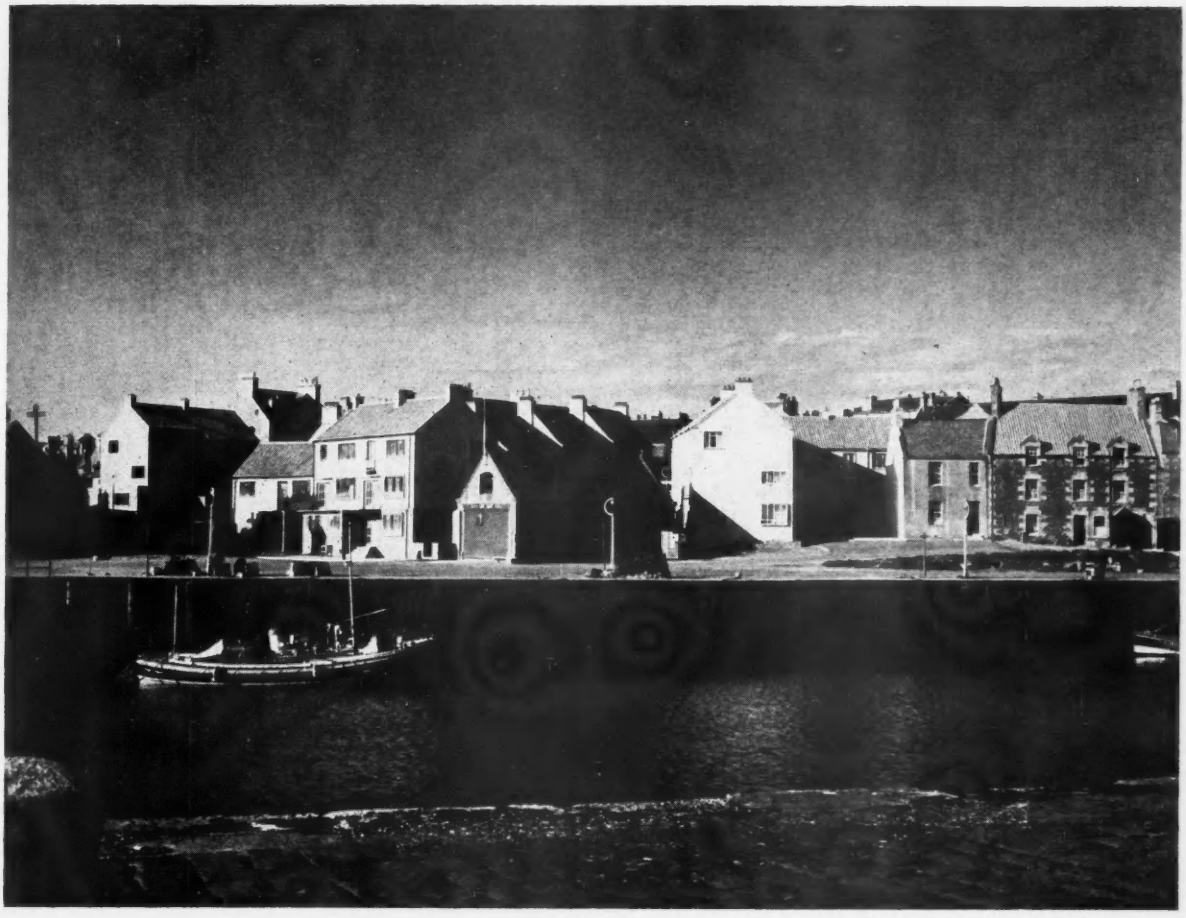
COMPETITION NEWS

FACULTY OF MEDICINE, ISTANBUL

THE Secretary-General of the International Union of Architects has issued the following statement through the R.I.B.A.:

"We have been informed that an international competition has been launched for a psychiatric and orthopædic clinic, and for an amphitheatre, for the Faculty of Medicine at Istanbul. The International Union of Architects has not been informed of this by the organisers or by the Turkish Section; the Union only knows a few clauses of the conditions. These conditions are wholly unacceptable, and we invite national sections of the International Union immediately to request all their members to abstain from participating in such a competition."





View from north-east across the harbour.

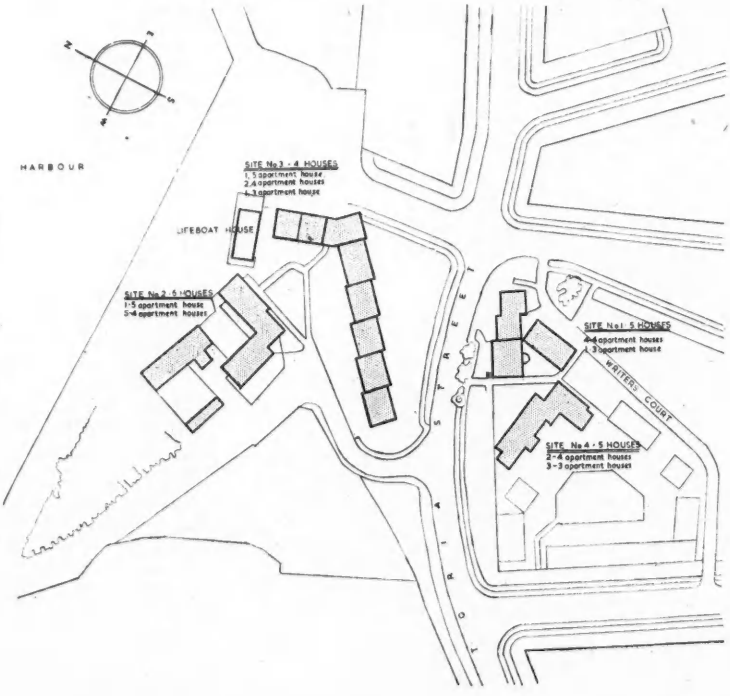
FISHERMEN'S COTTAGES, DUNBAR

for the Dunbar Town Council

By BASIL SPENCE, OBE, FRIBA, FRIAS, AND PARTNERS

Above : Perspective, by Basil Spence, of the scheme. This was shown in the Royal Scottish Academy Summer Exhibition.

Right : The layout. The houses are in four groups.



View of site 2 cottages, looking into the courtyard.
Below : Plans of site 2 cottages.

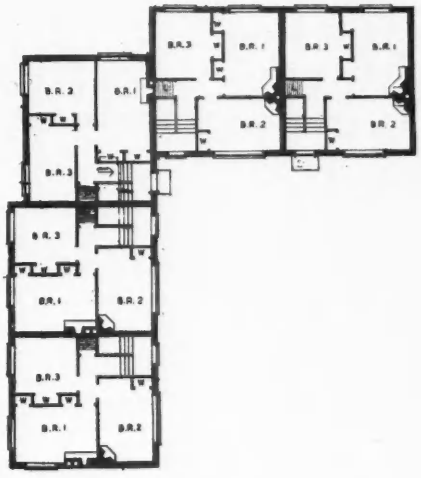
THE Dunbar (East Lothian) Town Council having decided to develop the harbour for the fishing industry, it became necessary to provide housing in the harbour area to accommodate the fishermen and their families, and, if possible, attract others to the area. Accordingly, several derelict properties were acquired by the Council ; these were demolished and new houses designed and built on their sites. Four such sites have now been developed incorporating a total of 20 houses, and these are grouped round the old lifeboat house and a terraced block of houses built in 1936.

Each site had its own peculiar problems with regard to area available, foundations, drainage and levels, and, as it was necessary to accommodate the largest possible number of houses on the sites, some very tight planning was required. In the case of sites 1 and 2, full development will not be accomplished until the "Volunteer Arms" and the old buildings beside the harbour have been demolished at some future date. The house blocks have been designed in a contemporary manner, but in character and feeling with the Dunbar atmosphere ; local natural stone has been used in the base courses and single storeyed parts, the upper walls are roughcast and lime washed, and the roofs covered with red clay pantiles. Windows are steel casements painted white, and the doors are painted in a series of bright colours. Railings are white, and rhones and downpipes soft grey.

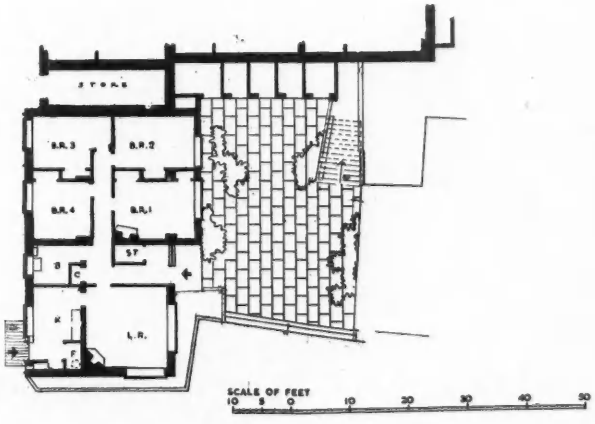
The accommodation on the various sites is as follows :—

Site No. 1.	One three-apartment single-storeyed house. Four four-apartment two-storeyed houses.
Site No. 2.	One five-apartment single-storeyed house. Five four-apartment two-storeyed houses.
Site No. 3.	One three-apartment single storeyed house. One five-apartment single storeyed house. Two four-apartment two storeyed houses.
Site No. 4.	Three three-apartment two-storeyed houses. Two four-apartment two-storeyed houses.

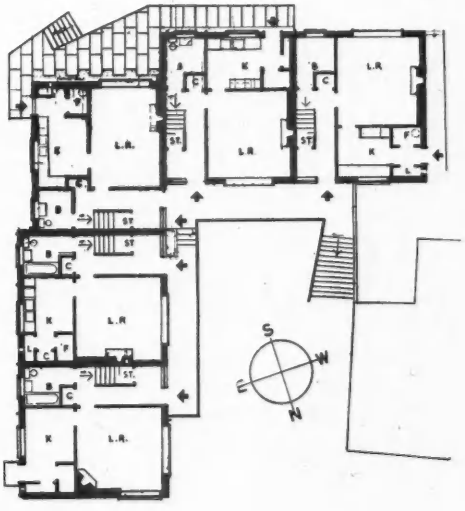
The builders were Messrs. G. and J. Allan, of Prestonpans, with local contractors carrying out other trades.



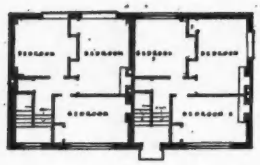
FIRST FLOOR



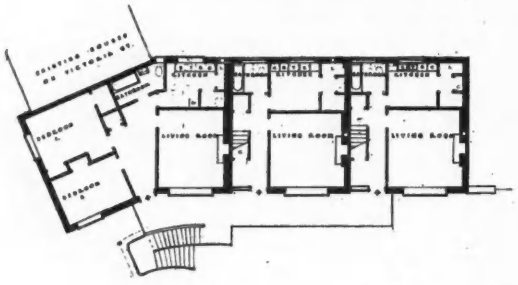
LOWER GROUND FLOOR



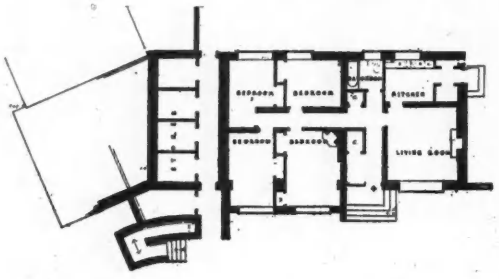
UPPER GROUND FLOOR



FIRST FLOOR PLAN

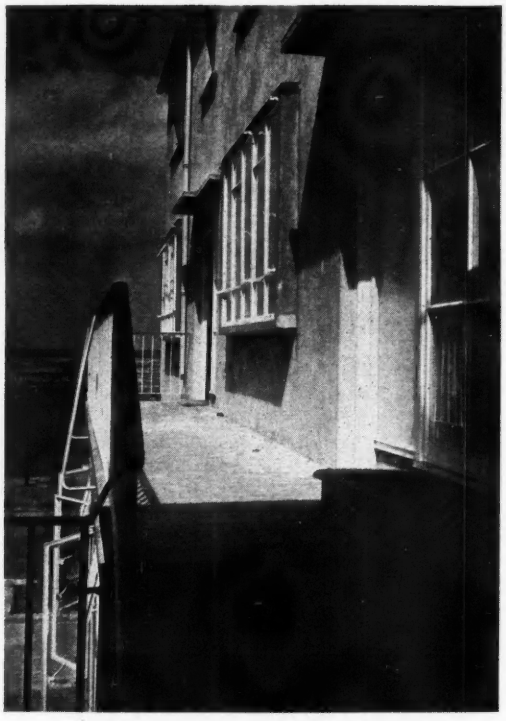


UPPER GROUND FLOOR PLAN



LOWER GROUND FLOOR PLAN

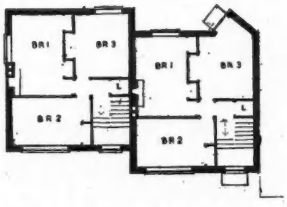
SCALE OF FEET
10 5 0 10 20 30 40 50



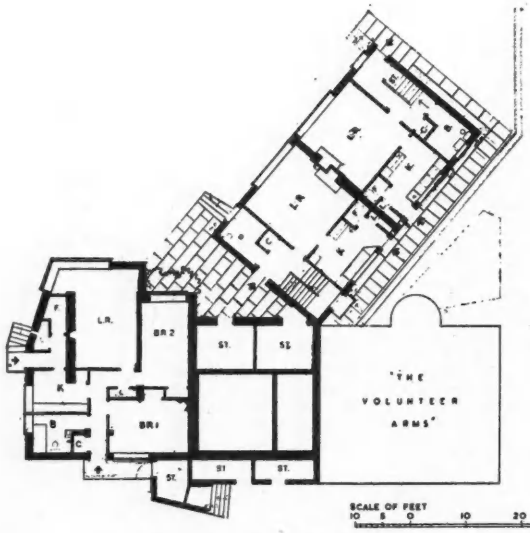
View showing external approach to first and second floors of scheme 2 cottages.

Above : Plans of site 3 cottages.

Below : Plans of site 1 cottages.

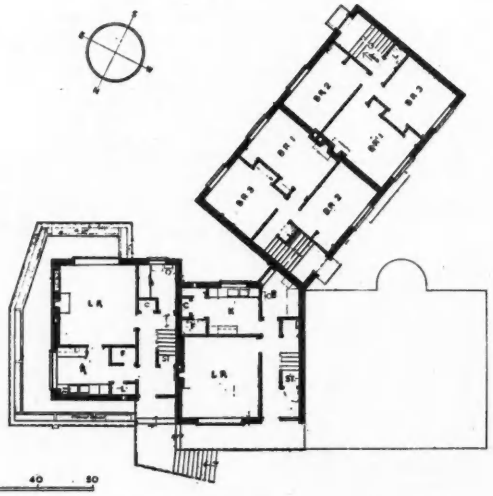


SECOND FLOOR PLAN

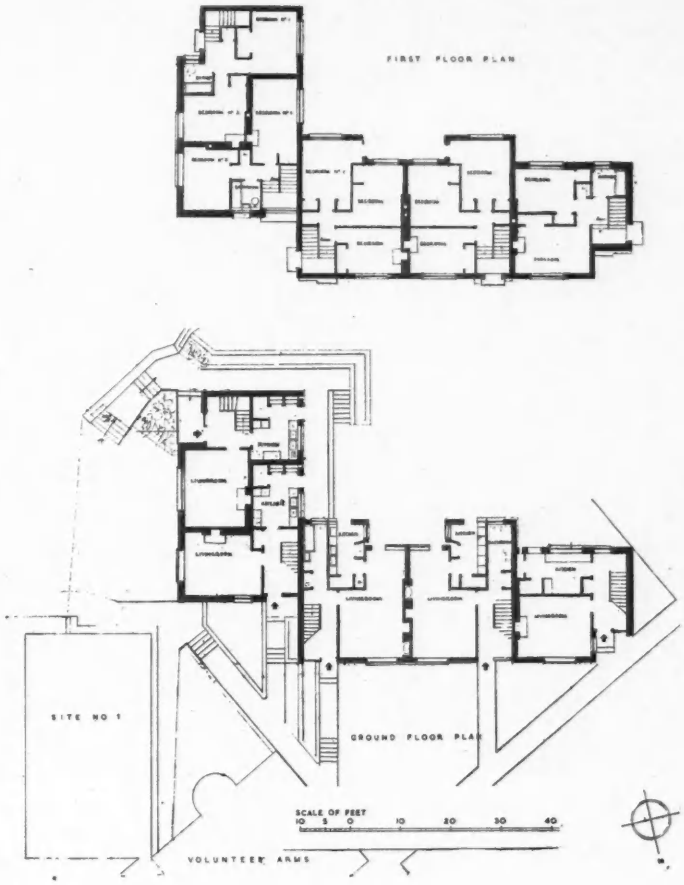


SCALE OF FEET
10 5 0 10 20 30 40 50

GROUND FLOOR PLAN



FIRST FLOOR PLAN



Right : Plans of site 4 cottages.

Left : View of site 2 cottages seen across entrance courtyard.

FISHERMEN'S COTTAGES, DUNBAR, E. LOTHIAN, FOR DUNBAR TOWN COUNCIL

View showing far end of the bar.

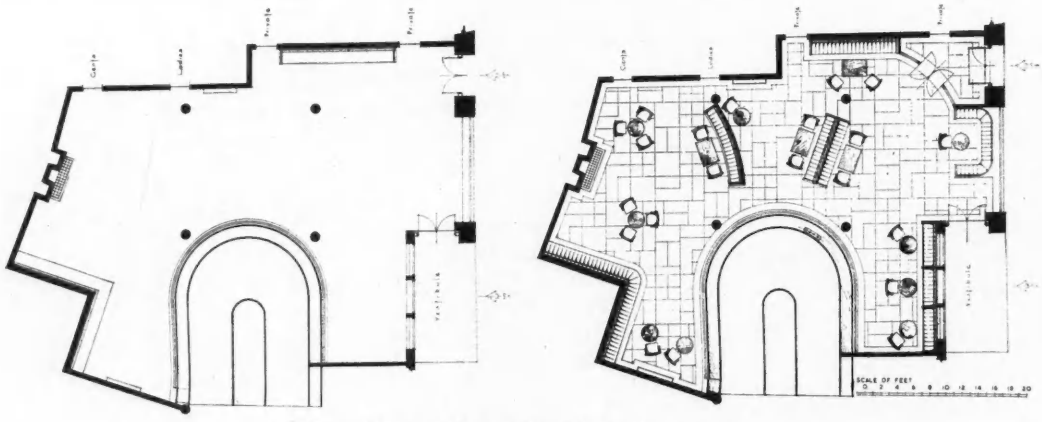
"THE PRINCE OF WALES," BRIXTON

Improvements to the Public Bar

VINCENT BURR, FIAA, LRIBA, P-PInstRA, AIStructE, ARCHITECT

IN this large and well-known public house in the centre of Brixton, the Wenlock Brewery Co., Ltd., have succeeded in an interesting experiment. The problem concerned the public bar, which, because of its large and almost unbroken floor space, did not provide sufficient comfort for the customers. The company felt that large-scale improvements were necessary and in consultation with the architect the present scheme was evolved.

A glance at the plan before improvement shows the "bareness"



Plans of the bar before (left) and after improvement.

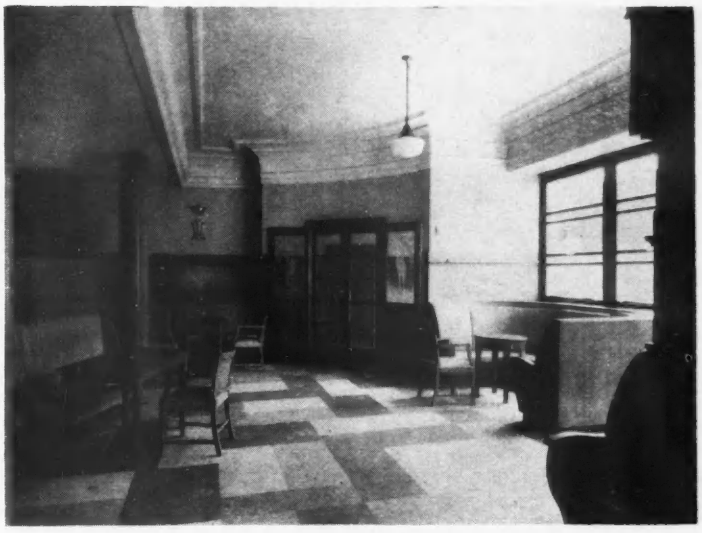
of the bar, and illustrates the need to break up the long vistas. This was achieved by building up two large seats, one slightly curved and single-sided, the other straight and double-sided, which virtually divided the bar into three. The seats are so designed and positioned as not to interfere in any way with supervision from behind the counter. The "dead" area around one entrance was formed into a lobby with new double entrance doors and decorated side panels.

The new lobby was also designed to allow for a built-in horseshoe seat under the main window, and new seats were also built in under the show case of the old entrance lobby. The existing seating was remodelled and the bar completely furnished with new tables and chairs.

The finishings of the public bar are part of the essence of the scheme in so far as complete comfort was desired without the development of a "saloon bar atmosphere," the object being to ensure that the old customers felt at home in the new surroundings.

The existing oak wall panelling was brought forward in a light colour, the walls, cornice and ceilings were toned in with shades of cream, and concealed coloured lighting produced a general soft effect. The counter and table tops were matched in new plastic coverings and the floor was covered with Battleship linoleum in random squares of contrasting colours. The new oak seating was furnished in grey Vinehide.

The roof light was fitted with a pleasant laylight at ceiling level.



View towards the main entrance showing the new lobby.

The assistant architect in charge was Mr. John J. Hickie, M.Inst.R.A., and the quantity surveyor was Mr. W. J. F. Tillyard, F.R.I.C.S.

The general contractors were Messrs. B. W. Stiles, New Cross, S.E.15.

Sub-contractors and suppliers were: seating and joinery, etc., Artisans (London), Ltd.; flooring, tables and chairs, J. Arrowsmith; counter work, W. H. Heath, Ltd.; electrical work, H. Ponton and Co., Ltd.; ventilation, Benham and Sons, Ltd.; laylight, etc., Faulkner Greene and Co., Ltd.

A general view of the bar.

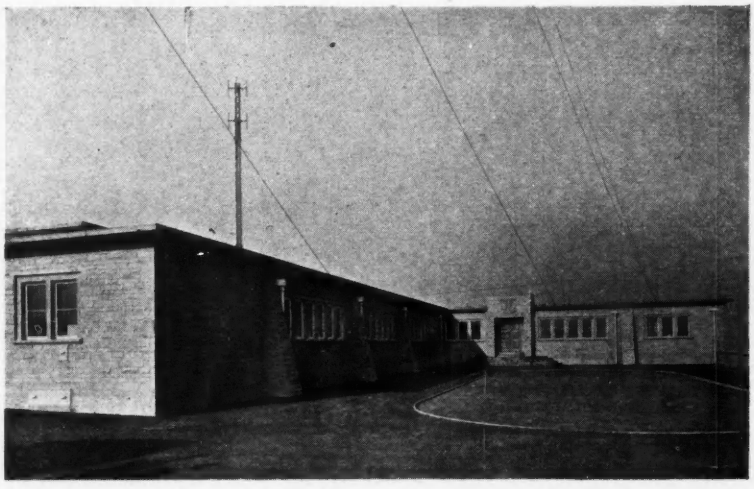
HOLME MOSS TELEVISION STATION

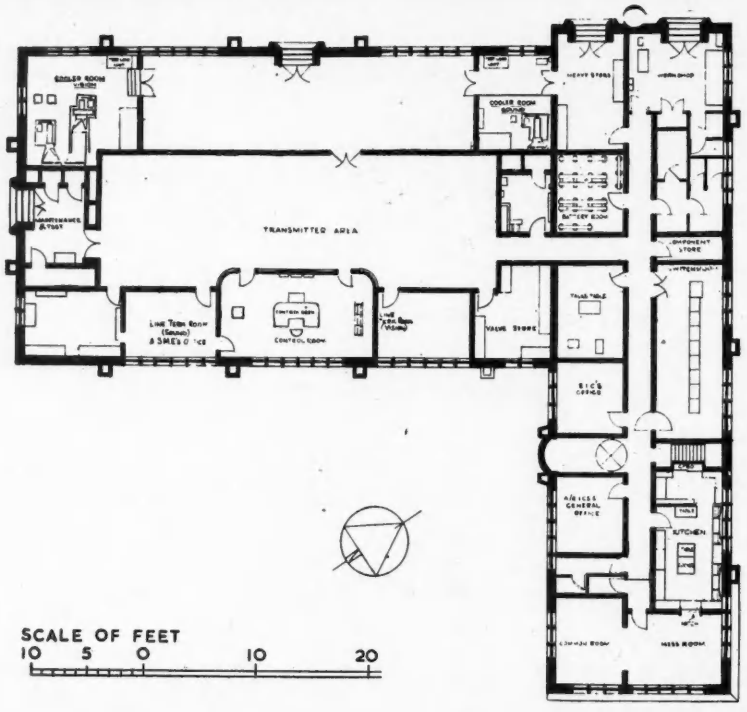
WIMPERIS, SIMPSON, GUTHRIE AND FYFFE, FFRIBA, ARCHITECTS FOR ELEVATIONS

HOLME MOSS is the second high-power transmitting station to be completed under the B.B.C.'s post-war plan for extending the Television Service, and will bring television within reach of 11 m. more people. The station comprises a building housing the two main transmitters, a smaller building for two standby transmitters, a 750-ft. mast supporting the main transmitting aerial, and a 150-ft. mast for a standby aerial. The general layout and planning of the buildings have been the work of the specialist departments of the engineering division of the B.B.C. To be in keeping with the wild character of the moorland upon which the station has been built, the external walls have been constructed of hammer block random rubble grit-stone, with sawn facings and dressings. Above the main entrance is the carved B.B.C. coat of arms. The outside walls are of cavity construction, the inner skin being built in 9 in. brickwork.

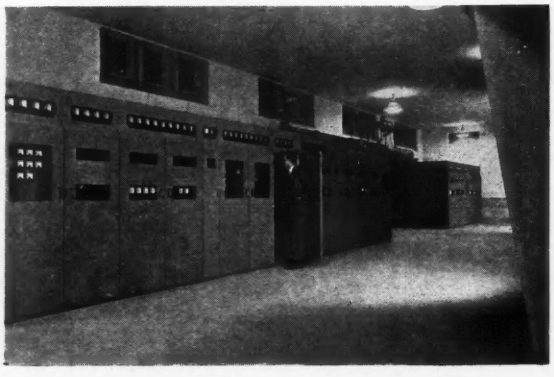
Floors are of concrete suspended construction, finished in " Korkoid" tiles ; except for the cooler rooms and heavy stores, where granolithic has been used. The quality-checking room has a carpeted wood floor ; its walls and ceilings are covered with panels filled with glass-silk to provide sound-absorption. The roof is of hollow precast concrete beams, covered with a vermiculite screed for insulation against cold.

The main contractors were, for the mast, British Insulated Callender's Construction Co., Ltd. ; and for roads and buildings, John Laing and Son, Ltd.





Below : The main transmitter hall (left) and the canteen.



CORRESPONDENCE

ARCHITECTURAL HOSPITAL MAINTENANCE

To the Editor of *The Builder*

SIR,—Your issue of October 12 (Page 489) reporting the recent presidential address of the president of the Institution of Engineers-in-Charge will have been read with interest and a measure of concern by those most deeply anxious for the success of the hospital service. It reports the president as having criticised, *inter alia*, " the practice of hospital boards in putting an architect in charge of maintenance of hospital premises." It quotes from the address a claim that " the architect's distinctive function concerned with the planning and aesthetics of buildings has practically no application to maintenance " and a suggestion that " there are regions where, for advising upon engineering maintenance proposals submitted by hospital management committees for approval, the most senior engineer available at regional headquarters is a comparatively junior assistant in the architect's department."

Subsequent reference to this address appears in the *Architects' Journal* dated October 18, and extracts from the address itself are reproduced at some length in *The Engineer* dated October 19. Insofar as they are concerned with " engineering in the national hospital service " and with the various parts which should be played in respect of building and engineering-maintenance and new works by regional hospital boards, their architects and their engineers, and by hospital management committees and their group engineers and clerks of works, the extract should certainly be read by those who are interested in the issues raised. It is readily understandable that, in the relatively few lines it was possible for your journal to devote to his address, the president's main criticisms and suggestions should not be set out in that full context without which, all too often, misinterpretations and inaccuracies are prone to occur. Yet much that could be prejudicial within the hospital service to the good relationship of the closely allied professions of architecture and engineering appears in this address which condemns so forthrightly the present arrangements for carrying out both engineering and building maintenance and new work.

Mr. Chalmers is an engineer of distinction and experience who is justly proud of the work for which he was responsible whilst a senior engineer to the London County Council, and who feels that in the system he then knew there somehow (albeit a little vaguely) lies the pattern of the system he would like regional hospital boards and their management committees to adopt. If it were possible for the joint views of the architectural and engineering professions to be given they would doubtless sound a more harmonious note than the somewhat strident tone of Mr. Chalmers' criticism of architects. Be that as it may, his statements cannot be suffered to pass without a comment from two colleagues on the staff of a northern regional hospital board—its architect and its engineer. The architect has known something of the operating of engineers on the staffs of county architects, and as a temporary military " engineer " has himself led a team of architects and engineers in the construction of hospitals for 17,000 patients. In 1949 he nevertheless advised his board to appoint a regional engineer. The engineer has had 32 years unbroken hospital service including Colonial appointments, and years of experience with an association of local authorities covering Wales and the National Health Service as it now is. Both realise, therefore, something of the complexity of the problems Mr. Chalmer's has discussed but has left unsolved—problems of professional relationships and inter-related responsibilities, of unified or divided control, centralisation or local autonomy, distances and duplication and, all too often, of self interest, fear and distrust.

The president's address contains this paragraph :—

> " If regional boards wished to combine and co-ordinate engineering and building functions in one department, they would have been better advised to make the regional engineer the head of that department. For, whereas the architect's supervision of engineering is purely nominal, the engineer is no stranger to structural design and maintenance, and could very well undertake the building maintenance, possibly with a building surveyor's assistance. The architect's distinctive functions concerned with the planning and aesthetics of buildings have practically no application to maintenance, and consulting architects could be engaged for new building works. Whether or not they employ architects, however, the regional board's need for the services of regional engineers will not be disputed by anyone who has understanding of the two professions."

To this we take exception.

There is ample room in the hospital service and the war against ill-health for both regional architects and regional engineers provided they possess skill, energy, and sincerity of purpose and that there exists between them deference to each other's professional knowledge, mutual respect and close and disinterested collaboration. That such a state can exist has been amply proved in the region in which it is our privilege to serve. It is greatly to be regretted—more especially at this very time when architects and engineers in the hospital service are for the first time beginning to see eye-to-eye and for the common good of the service on the many problems that confront them, that, among a number of claims the justice of which cannot be denied, such irrelevant and contentious statements as those quoted above should have been allowed to creep into the president's address. May we hope that, when next he addresses his colleagues or exercises his considerable influence, the president of the Institution of Engineers-in-Charge will lead his fellow-professionals in an endeavour to solve our common problems in the spirit of the opening lines of this paragraph rather than attempt to exalt his own at the expense of other allied professions, for in such a way can engineers show their disinterested wish to serve the hospitals of Great Britain.

P. H. KNIGHTON, Architect.
W. H. EVANS, Engineer.
Newcastle Regional Hospital Board.

" Dunira," Osborne-road,
Newcastle-on-Tyne, 2.

DURATION OF APPRENTICESHIP

To the Editor of *The Builder*

SIR,—In common with others, I read with keen interest the description in your last issue of the spare-time house-building scheme now under way among the Dunlop company's employees at Solihull. It appears, to quote your words, that " in their spare time, after a 12-months' course of bricklaying and all other phases of housebuilding," these men are building their own homes. Again to quote you, " the standard of workmanship is high," and certainly the illustration of the first pair of houses erected seems to bear this out.

Will the responsible leaders of the industry who deal with building craft apprenticeship now say why, in their opinion, boys entering the trade to-day must be bound for five years ?

DAVID GRAHAM.

Hampstead, N.W.3.

APPRENTICES IN THE BUILDING TRADE

To the Editor of *The Builder*

SIR,—As the young labourer is called up for National Service soon after his eighteenth birthday whilst the apprentice is deferred, your correspondent's argument must be confined to comparing wages of boys of 15, 16 and 17. In making this comparison it should be remembered that the young labourer is only paid for the number of hours he actually works, while the apprentice attends a Technical College one day a week and gets a full day's pay ; has considerable advantages at holidays and during bad weather ; and in addition can be away for up to four weeks each year on the production of a doctor's certificate without any loss of income.

It may be that in some areas boys are preferring to be labourers, but here applications to become apprentices exceed the vacancies, and as very few boys are joining the industry except as potential craftsmen, it is likely that there will be a shortage of " skilled " labourers in a few years.

Mr. Simmons' remedy is well worthy of consideration, but it is not quite so simple as he suggests.

J. HENTON WRIGHT.

20, Queensway, Lincoln.

SIGNING OF BUILDING CONTRACTS

To the Editor of *The Builder*

SIR,—Is there any difference made to the legality of a building contract (R.I.B.A. standard form) if, both parties being limited liability companies, they both sign over sixpenny stamps " for and

on behalf of" their respective companies with their designations? Should *both* sign over sixpenny stamps, and is the signature of the company secretary enough?

I have found this method in use in place of the text book recommendation of the "sealing" of the contract with limited liability companies and the consequent 10s. stamp, and would like to know if it makes any real difference.

W.L.S.

ESTIMATING

To the Editor of *The Builder*

SIR,—The article by S.W.H. in your issue of October 26, is very interesting to the lone builder's estimator who has to climb the rocky path to success which contains many pitfalls by the way.

But why has the estimator to travel alone, when so many people who depend on his skill and knowledge have banded themselves into a professional body to protect their interests both professionally and financially?

Is not the estimator worthy of a professional charter so that he may have the same protection, and the company of his fellow travellers? After all, the estimator's knowledge and skill was not obtained overnight.

C. LORING REES.

25, Greenfield-avenue,
Thompson's Park, Cardiff.

BRICKLAYING PRACTICE

To the Editor of *The Builder*

SIR,—A question was asked in your last issue by Mr. J. Roberts as to what is the practice in laying of bricks with frogs. The answer as I see it is: if there is constant supervision by an architect or his clerk of works, then the brick must be laid frog upward. If contractors or bricklayers are unsupervised, they will lay frog bricks the easiest way, the most economical way and none the less stronger way. By this is meant that a brick laid frog downward has a key to the joint all round the inside of the frog. A brick laid frog upward has a large quantity of mortar in addition to the joint, which in drying shrinks away from the brick passing over it so leaving approximately one-half of the brick without a purchase on the joint below.

C. Y. MASLEN. Director,
L. Maslen and Sons, Ltd.

Devizes.

To the Editor of *The Builder*

SIR,—This question is repeatedly met with at the present time in the supervision of building works, and one is amazed at the ignorance displayed by certain builders on this matter.

Mr. Roberts is correct in his belief that the bricks should be laid "frog" upwards, the consequent spreading of mortar on top thereof filling the "frog" solid.

The far too frequent practice of laying the bricks "frog" down never produces a solid bed throughout the length and width of the brick, which is only bearing on its edges. From the contractor's point of view, this shows a considerable saving in mortar; but in my opinion the chief reason why this bad practice has become so prevalent is that, from the workman's angle, less effort is needed to bed a brick "frog" downwards, than "frog" upwards, due to the reduced area of contact with the result that the bricks can be laid in this manner much quicker. This is a very big factor with the workman if paid by results, but the fact remains that it gives a far inferior job.

ERIC G. FELGATE [A.R.I.B.A.],
Borough Architect, Keighley.

College-street, Keighley.

To the Editor of *The Builder*

SIR,—This question has been asked many times. A well-known book says: "Frog: The indentation in the bedding surface of a brick, to reduce the weight and provide a key for mortar." It therefore follows that the brick should be laid frog upwards. It may be thought that when the brick is laid down it will save mortar (and in fact a considerable saving can be made by not filling the frog), but if it is assumed that the frog will get filled up out of the bed mortar it is a fallacy.

I have tested this out on a contract, and consider that if the mortar in the frog is part of the bed mortar it helps to stop water penetration through the horizontal joint.

In passing I recently noticed in a book from America entitled "Bricklaying Skill and Practice," that the bricks shown in the diagrams are without frogs, but that some bricks showed the old English idea of about 20 half-inch vertical holes which form a cavity and probably help to some extent to stop water penetration.

G. W. HARRIS [Hon. F.I.C.W.]

43, Leopold-road,
Willesden, N.W.10.

To the Editor of *The Builder*

SIR,—In reply to Mr. J. Roberts' letter in your issue of October 26, may I draw attention to the statement that "the frog should be upward" given in those two leading text books, Mitchells Construction, Vol. I, and Revingtons Notes on Building Construction, Vol. III.

If the bricks are laid with the frog downward the chances are that the bed joints will not be full and solid, and consequently throw the weight on to the front edge of the bricks, which may be the cause of failure.

D. A. FORSTER [L.R.I.B.A.]

6, Brewer-street, Maidstone.

To the Editor of *The Builder*

SIR,—Brick walls are, for the purpose of stability, considered as belonging to one of two categories, namely as composed (*a*) of cemented blocks, and (*b*) of uncemented blocks.

In class (*a*) the adhesive qualities of good mortar are accepted as being capable of resisting limited tensional stresses, whereas in class (*b*) the bed's main function is to transmit the load uniformly from one course of bricks to the course beneath. It should be fairly obvious that in either case the function of the bed will not be properly fulfilled if the bricks are not in contact with their beds over the whole of their bed area.

When bricks are laid with the frog downwards, it is quite common to find that the perimeter only is bedded solid, and that the frog is either empty or only part filled. When frogs are laid upwards, they are filled by the operation of spreading the bed, and when the brick is pressed home, the bed is solid throughout. Bricks should therefore always be laid with the frogs upwards.

There are two main reasons why the "frogs down" method is generally preferred in the trade, which are: (1) If the bed is not very skilfully laid, bricks laid "frogs up" need more effort to press or tap into position, and output is therefore reduced; and (2) considerably less mortar is required per unit of brickwork if the frogs are left as empty or partly filled voids.

WM. WADSWORTH [M.I.C.W.]

17, Rotheram-avenue,
Farley Hill, Luton.

HOUSING AND THE BUILDING INDUSTRY

National President's View

BUILDERS welcomed the return of a Government which realised that what their industry wanted was an expanding programme with less interference from the centre, declared MR. STEPHEN HUDSON, president, N.F.B.T.E., at the annual dinner of the London Association of Builders' Foremen and Clerks of Works which was held at the Café Royal, London, on Tuesday.

Mr. Hudson, who responded to the toast of "The Architects, Surveyors, Builders and Other Visitors," said that the new Government could rely on the fullest co-operation of his Federation, and he could assure them that if they created the right conditions for manufacturing and importing more materials, including timber, the present building labour force could take on extra work.

The chairman at the dinner, MR. D. E. WOODBINE PARISH, F.I.O.B., who proposed the toast of "The L.A.B.F. and C.W.," said that there were over 400 present, more than at any previous dinner of the London Association. In connection with the Association's pensions fund, he announced that £800 had been contributed so far which represented a record sum over previous appeals. Some 60 pensioners were, at present, benefitting from the fund. He hoped to receive further contributions, all of which would be devoted to the cause of assisting those whose age rendered them unable to share in the day-to-day activities of the industry.

Responding, MR. A. G. BUCK, president of the London Association, referred briefly to the principal aims of his Association which, he said, were to make the general foreman more efficient at his job and to encourage a greater degree of integrity. In presenting to Mr. Woodbine Parish a certificate of life membership of his Association, Mr. Buck said that he had given outstanding service to the building industry and had probably done more than any other individual in the interests of general foremen.

Other speakers included Mr. Michael Waterhouse, P-P.R.I.B.A., and Mr. J. S. Rigden, secretary, L.A.B.F. and C.W.

A model of a typical small scheme.

LOW-COST HOUSING IN THE YORKSHIRE AREA

Schemes Adopted by Three Councils

J. H. BLENKINSOPP AND G. L. THOMPSON, AARIBA, ARCHITECTS

SCHEMES have been adopted and tenders received by three councils in the Yorkshire area for low-cost houses designed by Messrs. J. H. Blenkinsopp and G. L. Thompson, AA.R.I.B.A., of Selby. These two architects submitted designs in *The Builder* low-cost housing competition early this year, and the present schemes may be said to have arisen out of this.

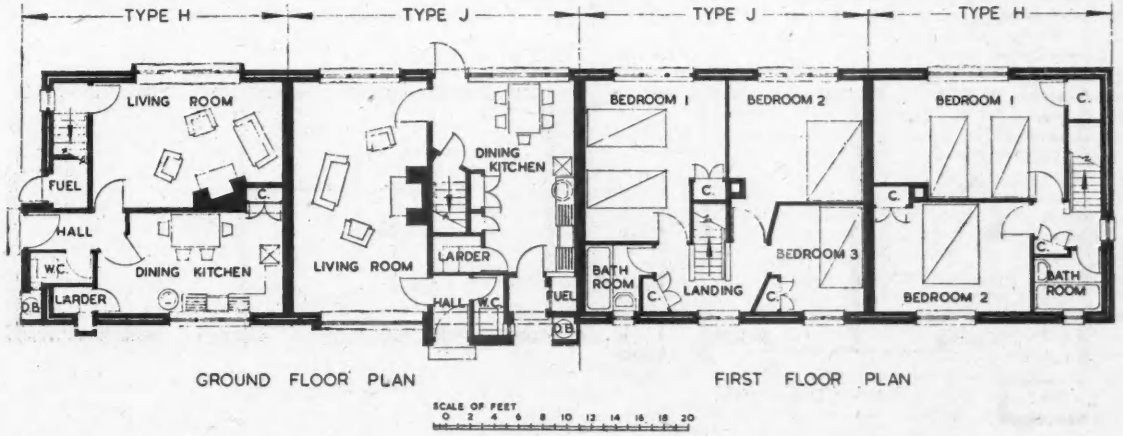
There are six types of houses in all, designated "A," "B," "C," "J," "H" and "I." The houses have been specially designed to keep down costs and yet maintain good building standards and amenities.

The essential points of design are a rectangular plan with a simple roof; elimination of outbuildings; smaller total floor areas without reducing the aggregate living space; standard construction units wherever possible (e.g., staircases in every house are identical and are in one straight flight); economy in drainage and plumbing by concentration of fittings; and economical frontages.

The houses are designed as interchangeable units and may be built in pairs or blocks of four or more of one type, or, if desired, a two-bedroom house and a three-bedroom house (non-parlour type) may be used in the same block. The houses are suitable for any aspect.

Special features of construction include cavity external walls with an outer skin of selected common brick and a 4½ in. inner skin of foamed slag concrete blocks. The party walls consist of 9 in. foamed slag concrete blocks, and the internal load-bearing partitions are of 4 in. foamed slag concrete blocks. Roofing is of clay pantiles and gable ends, with their parapet walls, have been designed in accordance with local tradition. Finlock precast gutters are employed. Standard metal windows are built direct into the brickwork. The height of ground-floor rooms is 8 ft., and that of first-floor 7 ft. 6 in. Built-in electric fires are fitted in best bedrooms, and electric or gas coppers are provided for laundry.

A typical estimate for a pair of three-bedroom houses is £2,400, or £1,200 per



house; for a block of four (two two-bedroom and two three-bedroom) houses, the estimate is £4,500, or £1,125 per house; and for a block of six (four three-bedroom and two two-bedroom) houses, £6,750, or £1,125 per house.

Details of typical tenders obtained are given below.

TYPICAL TENDERS OBTAINED

Actual prices taken from a site for 12 houses in a rural district with open tendering :—

Types "A" and "B" (Built as a block of four). Floor areas, 940 and 780 sq. ft., respectively.

	£
Cost per house	1,036
Add site works	138
(This includes certain works outside the curtilage, lead external water service pipes, cattle fencing and screen walls.)	
Add insurance and water	4
Add preliminaries	5
Total average cost per house	1,183

Types "B" and "C" (Built as a block of four). Floor areas 780 and 1,010 sq. ft., respectively.

	£
Cost per house	1,086
Add site works (Remarks as above.)	138
Add insurance and water	4
Add preliminaries	5
Total average cost per house	1,233

Type I.—Floor area, 956 sq. ft.

A negotiated inclusive price of £1,200 per house has been received for this type built in pairs on three rural sites, a few miles apart, having four houses on each site.

Tenders for 24 "J" and "H" houses for an urban district have been opened and below is given an analysis of a favourable price received.

Type "H" and "J" (Built as a block of four, two houses, two-bedroom, and two houses, three-bedroom). Floor areas, 738 and 888 sq. ft., respectively.

	£
Cost per house	1,049
Site works	104
Water	5
Average cost per house	1,158

Type "H" and "J" (Built as a block of six, two houses, two-bedroom, and four houses three-bedroom). Floor areas, 738 and 888 sq. ft., respectively.

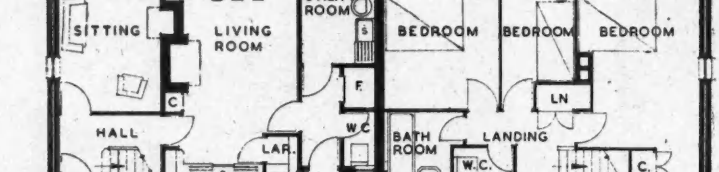
	£
Cost per house	1,042
Site works	104
Water	5
Average cost per house	1,151

TYPE I.

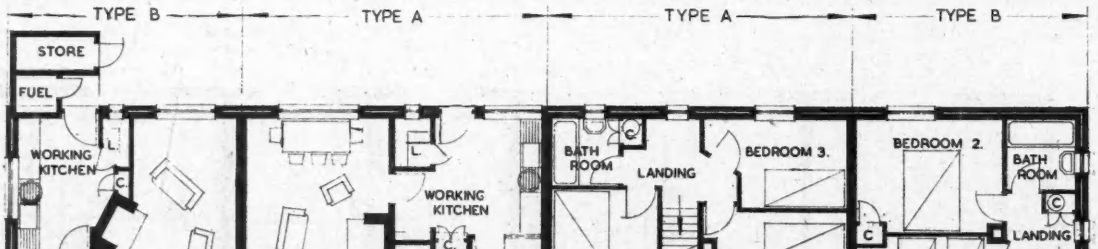
GROUND FLOOR PLAN FIRST FLOOR PLAN

TYPE C.

GROUND FLOOR PLAN FIRST FLOOR PLAN



Sketch showing a suggested treatment of front service entrances for intermediate type "A" houses in a block of four.



GROUND FLOOR PLAN FIRST FLOOR PLAN

DETAILS OF ACCOMMODATION

THREE-BEDROOM NON-PARLOUR TYPE "A"
Total floor area, 890 sq. ft.

GROUND FLOOR	sq. ft.
1. Living-room with cooking range	220
2. Working kitchen	108
Total living space	328
Minimum requirement of Ministry of Local Government and Planning	320
The kitchen will be fitted with an electric copper.	
3. Larder	
4. Small entrance lobby with w.c. adjacent	
5. Store and utility room	
6. Fuel store	
FIRST FLOOR	
1. Bedroom 1, with built-in wardrobe, and electric fire	136
2. Bedroom 2, with built-in wardrobe	120
3. Bedroom 3, with built-in wardrobe	71
4. Bathroom with bath and basin	
5. Airing cupboard with cylinder	

TWO-BEDROOM NON-PARLOUR. TYPE "B"
Total floor area, 745 sq. ft.

GROUND FLOOR	sq. ft.
1. Living-room with cooking range	215
2. Working kitchen	72
Total living-room	287
Minimum requirement of Ministry of Local Government and Planning	280
The kitchen will be fitted with an electric copper.	
3. Larder	
4. Small entrance lobby with w.c. adjacent	
5. Fuel store	
6. Garden tool and bicycle store	
FIRST FLOOR	
1. Bedroom 1, with built-in wardrobe and electric fire	135
2. Bedroom 2, with built-in wardrobe	114
3. Bathroom with bath and basin	
4. Airing cupboard with cylinder	

THREE-BEDROOM PARLOUR. "TYPE "C"
Total floor area, 965 sq. ft.

GROUND FLOOR	sq. ft.
1. Living-room with cooking range and sink	180
2. Parlour	117
3. Wash-house fitted with sink and electric copper	60
Total living space	357
Minimum requirement of Ministry of Local Government and Planning	320
4. Small entrance hall with cupboard under stairs	
5. Fuel store	
6. Dustbin recess	
7. W.C.	
FIRST FLOOR	
1. Bedroom 1, with built-in wardrobe and built-in electric fire	150
2. Bedroom 2	114
3. Bedroom 3	78
4. Bathroom with bath and basin	
5. W.C.	
6. Airing cupboard with cylinder	

TWO-BEDROOM NON-PARLOUR. "TYPE "H"
Total floor area, 713 sq. ft.

GROUND FLOOR	sq. ft.
1. Living-room, with open fire and back boiler	155
2. Kitchen, with gas cooker and copper	128
Total living space	283
Minimum requirement of Ministry of Local Government and Planning	280
3. Larder and cupboard off kitchen	
4. Small entrance lobby with w.c. adjacent	
5. Fuel store and dustbin recess	
FIRST FLOOR	
1. Bedroom 1, with built-in wardrobe and electric fire	140
2. Bedroom 2, with built-in wardrobe	117
3. Bathroom, with bath and basin	
4. Small airing cupboard, with cylinder	

THREE-BEDROOM PARLOUR. TYPE "I"
Total floor area, 937 sq. ft.

GROUND FLOOR	sq. ft.
1. Living-room, with cooking range, cupboard with working top and glazed sliding screen to one end	198
2. Sitting-room	122
Total living space	320
Minimum requirement of Ministry of Local Government and Planning	320
3. Larder	
4. Fuel	
5. W.C.	
6. Wash-house, with electric copper	
7. Small entrance hall	
FIRST FLOOR	
1. Bedroom 1, with built-in wardrobe and electric fire	130
2. Bedroom 2, with built-in wardrobe	130
3. Bedroom 3, with built-in wardrobe	70
4. Bathroom, with bath and lavatory basin	
5. Small airing cupboard with cylinder	

THREE-BEDROOM NON-PARLOUR. TYPE "J"
Total floor area, 862 sq. ft.

GROUND FLOOR	sq. ft.
1. Living-room, with open fire and back boiler	200
2. Kitchen, with cooker and copper	160
Total living space	360
Minimum requirement of Ministry of Local Government and Planning	320
3. Larder and cupboard off kitchen	
4. Fuel store and dustbin recess (see perspective sketch)	
5. Small entrance lobby with w.c. adjacent	
FIRST FLOOR	
1. Bedroom 1, with built-in wardrobe and electric fire	136
2. Bedroom 2, with built-in wardrobe	120
3. Bedroom 3, with built-in wardrobe	70
4. Bathroom, with bath and basin	
5. Small airing cupboard, with cylinder	

BUILDING SOCIETIES AND HOUSING

Opportunities Under the New Government

By B. S. TOWNROE, HonARIBA

THE return of a Conservative Government, pledged to encourage private enterprise in housebuilding and to aim at a target of 300,000 houses annually, provides a golden opportunity for building societies in this country. During the war I was a member of the official committee appointed by the Central Housing Advisory Committee "to consider the part that private enterprise can best play in post-war housing." Our report was signed by persons of various party political creeds, including the chairman, Sir Felix Pole, who at that time was chairman of Associated Electrical Industries; Sir Richard Coppock, of the National Federation of Building Trades Operatives; Sir George Burt; Sir Harold Bellman; and Alderman Ager, a Socialist leader in the Midlands. The late Sir David Smith was able to speak with authority and knowledge of the work of building societies, and we spent many hours listening to the evidence given by the Building Societies Association.

Although the proceedings of this committee are necessarily confidential in detail, our report of 56 pages is public property. This report did not attempt to underestimate the strength of the criticisms that certain pre-war houses built for sale were not always satisfactory in their standard of construction; that the purchase of houses on mortgage imposed an undue drain on the means of young married couples; or that owner-occupation tended to restrict the mobility of labour.

As I have no connection whatsoever with the building society movement, it is permissible for me to state as strongly as possible that in my view the Building Societies Association ought as quickly as possible to face their new responsibilities in view of the change of Government. They should reply to the many criticisms that are made in normal times, and which were made in volume during the General Election, that private enterprise means jerry building. It will be well if the public can be informed of the work of the National Housebuilders' Registration Council. Certainly on the committee during the war we were all much impressed by the weight of evidence given in favour of supervision being applied to all houses within a certain limit of size or value. Builders and building societies have now more than six years' experience of post-war building, and it should not be beyond the wit of man to develop still further the excellent work already carried out by the council.

There is also a general feeling on the part of some potential house owners that mortgages mean a millstone around their necks. The committee was informed by the Building Societies Association that the societies, before advancing money for house purchase, took steps to ensure as far as possible that applicants for mortgages were not only willing but also able to maintain their repayments and other commitments in connection with house purchase. Directors and officials of building societies understand the value of their credit inquiry organisations, but this is little known to the public.

The third criticism which we considered in great detail was the effect of owner-occupation on the mobility of labour. Here again the Association had a reply, and indeed stated that after the war they would be ready to play their part in the provision of houses for letting. Another suggestion was the establishment of an exchange mart for houses held on mortgage.

Guaranteeing Advances

Various ideas were considered with regard to providing guaranteed advances and we unanimously came to the conclusion that building societies should be permitted to accept collateral security from persons to whom they made advances in respect of which guarantees are to be given under Section 110 of the Housing Act, 1936, by the Minister of Health and the local authority.

In my opinion, if the present Lord Silkin, and not Mr. Aneurin Bevan, had been sent to the Ministry of Health by Mr. Attlee, the housing history of the past six years would be very different. Private enterprise would have had a better chance and more use would have been made of the experience of building societies. Unfortunately, Mr. Bevan had a somewhat warped idea of the function of building societies, which were admittedly under a cloud in certain quarters, and much of this report on private enterprise was pigeon-holed in Whitehall.

The housing powers of the Ministry of Health have now been handed over to the Ministry of Local Government and Planning, and fortunately the experienced and wise officials have moved over at the same time. The successor to Dr. Dalton will find his principal housing officials to be men of long and practical experience, men completely free, in my view, from any partisan bias and prejudice, and men able to see both the weak and the good points which were put forward in the report on private enterprise. It would certainly appear that the building societies should now grasp their chance to help in every possible way in providing more houses.

PUBLIC INFLUENCES ON PLANNING

"Awakening the Slumbering Millions"

OBSERVATIONS on the interest which is being taken by various sections of the public on planning policy in Britain were made by MR. F. J. OSBORN in a talk at the recently held Town and Country Planning Summer School at Oxford. During visits to the office of a number of planning authorities, whose staff have in the past three years been carrying out extensive surveys and formulating detailed plans, Mr. Osborn was able to ascertain the pressure of public influence on planning officers and their committees. He found that a few useful pressures were being exerted against possible abuses of planning, and a few for good aesthetics, but he found little evidence of influence being used in the interest of the basic social purposes of planning, as the following extracts from his remarks indicate. Mr. Osborn said:

Take the two greatest social-economic groups in our society: the industrialists and businessmen, and the industrial workers. Planning *against* occupational congestion, traffic hold-ups, time losses, excessive land values, long journeys to work and the urban muddle generally; and planning *for* health, adequate play-space, satisfactory homes and convenient neighbourhoods and accessible green belts: these would be directly and immediately advantageous to both industrial leaders and workers, whose interests here are in fact nearly identical. Historically it was imaginative industrialists who, by experiments in healthy and pleasant home settlements, pioneered modern planning. Modern planning is their own practical formulation of good living conditions generalised, and while there are dangers in governmental generalisation, and industrialists are entitled to resist specific applications of planning, they could at the same time put their force behind the purposes in it that are advantageous to them and their workers. I can't see that they are doing so.

LESS CONCERN

As to the employees in industry and business, including the organised workers, they seem to disclose no strong opinions or desires about the plans, for or against. There was a time when at their conferences and congresses local branches threw up resolutions demanding more room to live, slum clearance, play-space, dispersal, new towns and green belts. Do they assume these good things are on the way and therefore they needn't bother? Or have they dismissed them as war-time consolatory dreams? Contrast their indifference to planning with their implacable fight to keep up the rate of house-building (which compels each political party to promise more houses than any other) and their watchfulness about rents and point systems. Isn't it equally important to them to have good family houses with gardens in cheerful neighbourhoods near their work? But they don't detect any connection between their own demand for as many homes as possible, no matter where, and the type and quality of the homes. Vaguely they still favour the idea of planning, but because they have forgotten why they wanted it they are taking no positive part in shaping its policy.

Some sections of urban business are active in watching the plans. Retailers, for instance, through Chambers of Trade, are fairly well alert as to the policy for shops and shopping centres. And lately the Association of Chambers of Commerce has incited its affiliates to enquire what is happening. It would not be injurious to planning that the attitude of these bodies is primarily defensive of the *status quo* and resistant to changes or limitations, provided the social groups interested in improvements on the *status quo* were equally alert. Thus the proper corrective of a no-change stand by organised retailers would be the insistence by organised housewives on their convenience. But in the areas I visited I found no sign of a collective impact of housewives on planning—except in rural areas where women's institutes were agitating for village halls. There are much more fundamental reasons why housewives should concern themselves with planning—in particular, that good planning is absolutely necessary to good family homes. But on this they are trusting the planners; and you and I know that planners, like husbands, can't be trusted out of sight.

PRESERVATIONISTS

There is one section of public opinion that is most laudably active and effective almost everywhere: the important group conscious of the values of visual beauty, established order, and what is pleasant and significant in the heritage from the past. This is the preservationist group, brilliantly led and organised by the C.P.R.E. and its Scottish and Welsh parallels. Deservedly this organised group counts more in the present process of planning than almost any other. Without it, I think, in the absence of any effective pressure from the overcrowded town-dwellers, there wouldn't be any chance of the survival, even in a modified form, of the land-value clauses of the 1947 Act. It isn't now because the townsman wants green belts and lower density (though he does, and they are vital to him), but because this influential preservationist group is resolute to protect the countryside against the townsmen, that the compensation-betterment laws are likely to be amended rather than swept away.

In the county planning offices I found everywhere one influence extremely alert and active—that of the farmers. Here again, business and personal resistances to planning and development proposals are entirely legitimate. Under the development value clauses land-owners and farmer-owners have no incentive to sell, and they can be single-minded in their pressure for cutting-down land allocations for building and for the diversion of building projects from the better to the less good soils. The conflict for the use of land is real and can't be escaped. In the absence of the test by price (which notoriously wasn't satisfactory) there must be some other arbitrament; and, of course, this is the unanswerable case for governmental decisions based on social canons of judgment between the claims. But a truly balanced judgment, however wise the planning administration, must be imperilled if all the overt and organised pressure comes from those who, as farmers or preservationists, want to check building expansion, and none from the tightly-packed townsmen who need more space for living. And a commercial interest, like that of the farmers, can far more easily finance and organise a pressure group than a more numerous but non-commercial interest like that of the slum-dwellers.

MISPLACED PLANNERS

It seems to me fantastic, in these circumstances, that the present administrative set-up includes central and regional land-use planners appointed by the Ministry of Agriculture to reinforce the farming point of view. It seems to me a fundamentally unsound system of organisation to have a planning Ministry responsible for adjudicating on competing claims for land-use, and alongside it another set of planners, in another Ministry, to support one particular set of claims. It is like supercharging one cylinder in an internal combustion engine.

The logic of this idea would be to have a number of other independent planning officers similarly looking after other claims. Thus the Treasury might have regional land-use officers to go into the economics of each proposed development to see whether the extra cost of building through a diversion to grade X land couldn't more profitably be spent somewhere to improve marginal food-growing land. Or the Board of Trade might have regional land-use officers to defend industries from proposals to move out of congested areas. And on the same principle I'd like a Ministry of Human Welfare to have land-use officers in every area to exaggerate the case for large gardens. Then if all the departmentally supercharged pressures were equal and opposite the county planners and their central Ministry might be able to strike a fair balance.

There are no comparably strong outside pressures for the accepted policy of lower density redevelopment, dispersal of industry, green belts and new towns. The besieged stronghold of this policy is simply the intelligence or common sense of informed inner circle opinion and its regard for the record. Lacking the reinforcement of current pressures, any citadel thus harried must weaken. The new towns already started, having had much money spent on them, will go on; they are small outcrops of rock in an erosive flood. But if the present balance of effective influences had existed in 1946-47 I don't think anything like a dozen new towns would have been started even by the extraordinary personal dynamism of Lord Silkin. Even at that time it can't be said that the necessity of dispersal to good living conditions in redevelopment was crystal clear to a very large element

of public opinion. But the Barlow Report and propaganda at high levels had made an impression on enough Members of Parliament to enable Lord Silkin to do a spectacular thing that, when it had been decided upon, enlisted popular enthusiasm. The episode shows that an exceptionally determined Minister can go one jump ahead of effective opinion and do very big things. And so perhaps can a very strong planning committee, or even a very strong and clever planning officer.

The main impression I bring back from my brief urban and rural rides is that of the paucity and thinness of public influences on planning, and of an unrepresentative balance in such influences as there are. The great mass of the people—the badly situated urban millions—are so far indifferent to the chance of rescue that planning could offer them. I lament this more than I can say. I feel it is urgent to correct it. It is tragic that four years after the great 1947 Act minimum residential space standards are going down, and that city redevelopment is proceeding on patterns against which the millions unequivocally expressed themselves in the canvasses of opinion that preceded what we hopefully advertised as the "new planning." It is frightening that one great conurbation is adding to itself (not replacing but adding) 10,000 or 12,000 dwellings a year while all the new towns together are building 3,000 dwellings a year. But the trend is entirely explicable when you define and weigh up the influences that are conscious and vocal. The major social interests, that ought to be the major influences, are asleep.

Yet there is, I am certain, latent passion for the greater purposes of planning in the mass of ordinary citizens, and a not negligible concern for their welfare in the hearts of many well-informed persons, including the planning administrators. There are enough people in this country who grasp the essentials of the town and country problem, if they get together, to renew the social idealism of planning and wake up the slumbering millions to the opportunity they are missing.

OBITUARY

H. S. W. Stone, F.R.I.B.A.

We regret to record the death, which took place at Staplehay, Taunton, on October 24, of Mr. Henry Spencer Walcott Stone, F.R.I.B.A. Mr. Stone was the senior member of the firm of H. S. W. Stone and Partners, of Taunton.

Hugh Trepess

Mr. Hugh Trepess, of F. P. Trepess and Son, architects and surveyors, of Warwick, has died at the age of 65. Mr. Trepess entered his father's firm at Church-street after completing his studies in Birmingham, and had worked in Warwick ever since. His services as an architect were much in demand and he was well known as an enthusiastic worker for the preservation of ancient Warwick and a member of the Warwick Society.

F. J. Meen

We regret to announce the sudden death on October 19 of Mr. Frederick John Meen, a partner in the firm of Pells and Meen, architects and surveyors, of Station-road, Beccles, Suffolk. He was 66 years of age.

"PLANNING INFLUENCES YOUNG OFFENDERS"

Juvenile Magistrate's View

THE extent to which bad planning has contributed to the growth of juvenile delinquency was discussed by MR. JOHN A. F. WATSON at the recent national conference of the Town and Country Planning Association. Mr. Watson is a Metropolitan Juvenile Court Magistrate and a past-president of the Royal Institution of Chartered Surveyors. He began his talk by outlining the day-to-day activities of a busy urban juvenile court and referred to the lessons that were to be learned there. Mr. Watson continued:

Too often, from what they [parents] tell us, we gain a horrid glimpse of surroundings with which, I imagine, most of us are familiar. It is a grossly overcrowded home where everyone falls over everyone else. There is nowhere for the youngsters to play and no quiet place where the older ones can do their homework. The nearest fields are miles away and the only playground for Bert and John and Annie and Jim is the hard grimy court which lies outside. While for Harry and Bob, who have left school and go to work, the most convenient rendezvous for meeting their friends, smoking their fags, swopping their stories, whistling to their girls, is the corner of the street—that same corner of the street which, as Sir Alexander Paterson so wisely observed, is a more dangerous place for boys and girls in their teens than is the middle of the street for the aged and infirm. Can we wonder that Harry or Bert or John, as his mother tells us with such bitterness in her voice, "keeps going with all the bad lads, your Worships. His dad and myself we just can't keep him away from them. He's not a bad boy really; it's just that he's led away. . . ."

Flats Are Not the Answer

Of course, we devise and administer palliatives. We have been doing that in one way or another for nearly a hundred years. We have pulled down a lot of the grubby little houses and have cleared away a lot of the grubby little courts. And what have we built in their place? We have built great blocks of flats, complete with bathrooms and central heating and lifts and private balconies and enclosed playgrounds equipped with expensive slides and swings and see-saws, and yet the basic trouble remains.

Since I can remember I have disliked flats—I mean as a background for children's upbringing. I don't care how beautifully you build them, how spacious they may be, how lavishly equipped; I don't believe that any flat begins to compare with a house and garden as a background for family life. Children are gregarious and I believe it to be right and proper for a boy to belong to a gang. A good Scout troop is, after all, merely a respectable gang. Everything depends on the kind of gang, and the boy who lives in one of these great flatted estates has very little choice in the matter. Almost inevitably his friends and associates are the children who live in the same block or on the same staircase, and the pattern of his conduct, nay, more, the formation of his character, is largely conditioned by what happens to be "good form" in his particular circle. It is extraordinary how quickly children respond to leadership and how readily their moral standards and their codes of conduct can be swayed by the example of some other child whom they admire. After all it is to be expected. Children are emotionally as well as intellectually immature. We must not expect to find old heads on young shoulders. But does it not suggest to us the importance of providing each child with the opportunity of choosing the gang he joins instead of restricting him to an association with the children who live above, below and around him?

Of course it may be said that the same danger exists in a street of houses. So it does to some extent. But houses and gardens (and what is the use of a house without a garden?) are a powerful antedote to street gangsterism. Too few people realise how much the possession of a small garden means to a household with children. It is far more than a place to hang the washing and put the dustbin. It's an extra room into which an expanding family can overflow. It's a place where Tommy can be left to play with the neighbour's child without fear that they will be led away by the bad gang at the street corner. It's a place where boys and girls can keep pets and grow flowers, do rough carpentry and, most important of all, work in the summer evenings in partnership with their parents—that partnership is vital to united family life.

Children are adventurers. It is a sad reflection on our social structure that there exists in our great cities very little opportunity for our children to adventure without their coming into conflict with the law. A London magistrate once remarked that a street of bombed houses as a source of potential adventure offers to children precisely the same attractions as rocks by the sea-shore. And yet, in rebuilding our cities, how utterly we fail to provide scope for the child's adventurous instincts.

Look at our playgrounds, for example, so neatly enclosed with wire mesh and replete with the last word in expensive swings and see-saws. "Made" games for children soon pall. What adventurous children need is the means with which to make games for themselves. Wander round any poor district and observe for yourself where children like to play: not in the quadrangle of asphalt so thoughtfully provided by the estate architect, but among the ruins of bombed houses or on the waste ground that is full of hills and holes, or best of all on a builders' dump.

New Towns

I believe that new towns provide the only means of meeting most of the needs of children in this troubled, overcrowded country of ours. And what do we want for children in the new towns? First, we want better material surroundings; better housing, better schools, a nearer countryside. Almost as important as schools to the child's education and upbringing is the provision of suitable premises for clubs and other spare-time activities. Why do we tend too frequently to allow the provision of new housing to outstrip the provision of these amenities? The established organisations and the social settlements tend quite naturally to remain in the overcrowded areas. Yet I am convinced that a large part of the delinquency which we experience in our new suburban housing estates is due to the lack of equivalent provision for boys and girls who have suddenly been transplanted to a very different kind of life.

THE DISTRIBUTION OF LAND

Manifold Priority Claims

SOME aspects of the difficulties of achieving more efficient methods of planning were referred to by PROFESSOR W. G. HOLFORD, F.R.I.B.A., M.T.P.I., in a recent talk at the national conference of the Town and Country Planning Association. We take the following extracts from his remarks:—

I do not hold Utopian views about national planning; and I do not complain of the fact that it is not yet possible for Whitehall to make a scientific schedule of the amount and distribution of land to be allocated to every possible use throughout the country. But equally, it is no use to argue as if this were actually happening, when it is not. All we know is that England and Wales have some 37 million acres for a population of 44 million people, which (with immigration) is still rising; that, of the total acreage some 24 million are in crops and grass—about half an acre of improved land per head; that this produces a little over half of our food; and that there is an official agricultural expansion programme which has set a target for 1952 of an increase of 50 per cent. over the 1938 level of production.

To reach this, greater production will be required from fewer acres. Comparatively, our yields are already high; but they would have to be higher still. A certain amount of slow and expensive upgrading of land may take place; and limited reclamation of waste land and commons. Combined afforestation and farming may be fostered; and productivity will certainly have to go up. This will in turn demand contented and well-housed agricultural workers, more equipment, improvements in servicing, continued research and training, and close co-operation between the Agricultural Land Service and the county planning committees. We also know that land is being lost for agriculture in England and Wales at the rate of at least 35,000 acres a year; and that rising standards and the defence programme are likely to increase this figure also.

A Variable Commodity

Land is not a standard commodity; it varies in quality, in accessibility, and in location relative to existing centres of activity. Therefore, its development to a more "productive" or to a non-agricultural use is not a case of simple transfer, even after the payment of a development charge! Capital is required for the upgrading, or the levelling, or the restoration, or the constructional development, or the planting, as the case may be. Until the Minister of Local Government and Planning took the job in hand there was no national contribution and no legal requirement for the reclamation of this natural asset—the land.

I know of industrialists who would not consider paying 6d. a square foot extra for clearance and foundations on an otherwise suitable factory site (the total cost of construction being over £1 million), and who preferred to settle on virgin agricultural land instead. Economically they were, of course, quite justified as individuals; but the unrecognised public loss was considerable. In the same way a housing authority or a new town corporation cannot look at houses which need 15 or 20 per cent. extra cost in construction and services on account of their being built on made-up land, or land liable to subsidence. These costs are reflected in rents. But if, for this reason, they are not passed on to the consumer to-day, then it is only too likely that other and more productive land will be used for the houses, and so the costs will be passed on to the consumers of to-morrow.

In stating that the first and greatest difficulty is the lack of knowledge and of machinery, for the definition of priorities on a national or regional basis, I am really saying that we are not yet in a position to plan a comprehensive programme, to provide funds where they are likely to do most good in the long run, and to offset this by the enforcement of unpopular restrictions in other cases.

Land Requirements

The second difficulty is that whereas it might be possible to make an agricultural land budget (in the same way that a forestry budget has already been attempted) accurate estimates of urban land requirements cannot yet be made with even the broadest approach to accuracy. On the other hand, we have planned (and I think quite rightly) for maximum densities, for limiting floor space indices in central areas, for increases in the scale of recreational open spaces of all kinds. We have entered the "service" phase of industrialisation, with its accent on the social and welfare aspects of production.

Colin Clark pointed out many years ago that the great cities, even those which grew to importance originally as centres of secondary or manufacturing industry, are becoming more and more the centres of tertiary or service industry. This also includes commerce and the professions, transport and exchange, entertainment, building and education. Look at the school plan for London, and you will realise what an enormous area is planned for purely educational use, as compared with 50 years ago.

The significant point is that we plan for an ideal—so much land for a primary school, so many acres for playing fields for a secondary school, this amount for a county college, and that for a technical college. And then faced with the actual and highly competitive land use in the built-up areas, we have to compromise and say, "We should like this much; but if we can't get it we will accept that much, and hope for the best." I do not think there is yet any alternative way of proceeding. But it is quite clear that we are far from being able to calculate what our urban land requirements will be over the next 20 years or so. I believe that it is only by tackling these difficulties, by thinking out ways of economising and making-do, and yet hanging on to the general objective of a productive life in every sense of the word, urban or rural, that we shall improve our planning methods.

British Standards Institution

The British Standards Institution have recently issued the following British Standards: B.S.607:1951, "Reinforced Concrete Poles for Electrical Transmission and Traction Lines," price 2s.; B.S.417:1951, "Galvanised Mild Steel Cisterns, Tanks and Cylinders," price 2s. 6d.; B.S.1477:1951, "Wrought Aluminium and Aluminium Alloy Plate," price 5s.; B.S.1472:1951, "Wrought Aluminium and Aluminium Alloy Forgings," price 4s.; B.S.1010:1951, "Draw-off Taps and Stop-valves for Water Services," price 6s.; B.S.1778:1951, "Fifteen-amp, Three-pin Plugs, Socket-Outlets and Connectors for Theatre and Cinema Use," price 2s. 6d.

All these publications are obtainable from the B.S.I., 24-26, Victoria-street, S.W.1.

BUILDERS' PRICES

SPON'S ARCHITECTS' AND BUILDERS' PRICE BOOK, 1951-52. Edited by Davis, Belfield and Everest, Chartered Quantity Surveyors. (London: E. and F. N. Spon, Ltd.) Price 18s.

A NEW EDITION, the 77th (1951-52), of this well-known price book makes a welcome appearance. All the information given in its 580-odd tightly packed pages has been meticulously revised, and rates and prices are as up to date as it is possible to make them in these uncertain times. No doubt some changes will have occurred since going to press, but the knowledgable user of the book will know how to ascertain and provide for these. The great value of the work is its comprehensiveness and the sure help which it gives to the estimator. It is divided into three parts: I, Estimating (directions, rates of wages and working rules, market prices of materials, plant, constants of labour and materials, and prices for measured work); II, Approximate Estimating (directions, cubes, etc., approximate estimates, specialists' work, and conversion tables); and III, Day-work, Prime Cost and Fees (directions, day-work, prime cost contracts, and fees for professional services), with Appendices of standard price lists and a stop press section.

A notable new feature of this edition is the Constants of Labour and Materials for all the more important items for which prices are given under the heading of measured work. The term "Constants," as the editors point out, is somewhat misleading, for although there is not much room for difference of opinion about the quantity of materials required for a particular item of measured work, the amount of labour involved is by no means constant, output per man-hour being affected by a variety of variable factors. Thus, the "Constants" used here represent only the assumptions that have been made for the purpose of typical prices. Nevertheless, they add greatly to the value of the book, for they not only help the estimator literally, but make it possible for him to substitute different wage rates and prices, and to assess the value of numerous additional items for which prices are not quoted in the book. Another improvement in this edition is the clear distinction drawn between general builders' work and work priced on the assumption that it will be carried out by a sub-contractor. There is a good index.

It is true that no price book can replace the estimator's skill, but every estimator can derive help from a good price book. "Spon's," by its comprehensiveness and reliability, is a guide and comforter that everyone concerned with estimating for building work will be glad to have by his side, particularly in such uncertain and anxious times at the present. G. J. H.

Fire Retardant Treatment

The Fire Protection Association have published a pamphlet on The Fire Retardant Treatment of Textiles and Timber. The frontispiece of this publication is an illustration of a fire at the Wincoff Hotel, Atlanta, Georgia. This building was erroneously supposed to be fireproof and illustrates the need for urgent study in the origin and development of fires in buildings. The pamphlet contains details of tests for treating materials and fire resistance. It advocates the cheapening of the process of fire retarding treatment so that it can be applied over a wider field.

CONTEMPORARY FURNITURE

Workmanship and Design

The following extracts are taken from a talk by Mr. David Pye, in the recent series of broadcasts in the B.B.C. Third Programme on Architecture and Design.

THE belief that designers to-day were faced with an acute problem of style, and makers with a no less acute problem of technique, was expressed by Mr. Pye at the opening of his talk. Neither problem, he continued, was yet being solved and until both had been solved he did not think it was likely that the æsthetic qualities of our furniture would rise again to the level they had reached in the past.

Speaking first on the maker's problem, he said :

It may perhaps be thought that considerations of workmanship lie outside the scope of a talk devoted to design. But the quality of workmanship is no less important æsthetically than it is for practical purposes. Indeed, good design badly executed is no more tolerable than good music badly played.

There can be no doubt whatever that in the days when all furniture, however cheap, was made by hand, it was far easier to achieve consistency in workmanship than it is now, and plenty of the cheap, rough and delightful furniture of the past survives. It is true that unconscientious handwork can be and often has been worse than any, but on the whole, handwork tends to produce consistent workmanship. Nowadays, however, if the furniture is to be cheap it has to be made largely by machine tools, but not wholly, and therein lies our problem.

HAND AND MACHINE

When hand-made furniture has to be made cheaply—that is to say, quickly—it is possible to speed the process by doing consistently rough and imprecise work, and by this means a sound and satisfactory-looking job can result. But when furniture has to be made cheaply with the aid of machine tools, it is not possible to produce consistently imprecise work. It is not possible because the machines which make the component parts of furniture are incapable of producing imprecise work. They automatically do accurate work. They work as accurately as the very best hand cabinet makers, and even if they are misused they still produce a precisely regular kind of coarseness. But when it comes to assembling and finishing these component parts, the same degree of precision doesn't arrive automatically at all. No furniture is entirely machine-made, and as a matter of fact, most furniture has a great deal of handwork in it, even if the handwork is done with power-driven tools. Many of these finishing operations need as much manual skill to-day as they ever did in the past. If less care and skill are used, it does not necessarily mean that the job will be unsound for practical purposes; but it does mean that the workmanship will necessarily be inconsistent. That is the maker's problem. To produce cheap furniture, he is driven by the processes he uses to do an inconsistent job, containing accurately machined components less accurately assembled and finished. In fact, the initial processes set a standard which is too high for the final processes.

When the price of furniture has to be kept very low there is probably no way out of this impasse. Since you can dispense with these refinements of workmanship in the later operations they will be the first things to go if rising costs and a maximum price force you to dispense with something. But when the price factor is not so pressing, the quality and consistency of the workmanship depend on the manufacturer's and the workmen's standards. Forty or fifty years ago, the cheapest furniture was no doubt much worse made than our utility furniture is now, but the more expensive furniture was, on the whole, made better. Its design was often bad, but good workmanship and good design don't necessarily occur together. Design may have improved since then, but workmanship on the average has declined—and it is not the fault of mechanisation. Machinery was widely used in those days, and, over a large part of the trade, the manufacturing technique has not essentially changed. In fact, craftsmanship is not a matter of technique at all. It is a matter of standards. The men of 50 years ago learnt more in their apprenticeship than mere skill. They learnt to respect the traditional standards of quality in cabinet making. Far the most important function of apprenticeship is to teach those standards; and more, to teach that a man is no craftsman unless he feels that his self-respect is at stake in his work.

We must somehow see that these standards are kept alive in contemporary work if only for the sake of the apprentices. Manufacturers who despair of finding skilled craftsmen of the old sort in these degenerate days perhaps forget that craftsmen are not found but made and that they themselves are able to make them.

Meanwhile, though cheap furniture may not be consistent in workmanship, it can still be pleasant, because wood, which is still the cheapest material for making furniture, has an inherently pleasing quality.

THE RADICAL PROBLEM

Good timber, good workmanship and good polishing would together go more than halfway to giving us good furniture, and as things stand they would make up for many faults in design; but they would not affect the radical problem which faces all contemporary designers. This problem, as I have said, is concerned with style: that is to say with design for appearance rather than with design for use. It would be generally agreed amongst designers to-day that their first care should be to ensure that their furniture does the job for which it is intended. In consequence contemporary design for use is carefully studied and on the whole well carried out. Design for appearance can never be separated from design for use. You cannot first make the thing useful and afterwards beautify it. Every separate decision that a designer makes while he is developing a design must at one and the same time both improve the usefulness (or the structural neatness) of the job, and also improve its appearance.

Mr. Pye went on to refer to foreign influence on British contemporary furniture and referring in particular to the influence of Denmark, he said:—

Danish furniture, with all its logic and distinction, and all the exquisite workmanship of their cabinet makers and factories, takes us at present no further towards achieving the ornamental qualities of which we feel the lack. There is a school of thought which advocates adding bits of extraneous ornament—preferably Victorian in flavour—to our unpromising structural forms. I do not believe that this will lead anywhere. If the history of architecture and furniture can teach anything it is that structure and ornament must be designed as one, each a part of the same intention, each modifying the other. In a fully developed style there is plenty of scope for applied ornament by way of grace notes but we have a long way to go before we can attempt them. We have first to develop an expressive style: the expressive styles of the past have all been developed by modifying the structural features in such a way that they themselves became ornaments. This has always taken time, and I believe that only the passage of time will help us, for no style has endured or been worth much that grew up overnight.

TECHNICALIA

PLASTERING. By J. T. Sawyer. (London: Edward Arnold and Co.) Price 8s. 6d.

THIS BOOK covers the intermediate syllabus of the City and Guilds of London Institute. It has been written primarily for those students of plastering who are working for this particular examination, but it should prove of value to those taking a general building course and as a textbook for pupils attending secondary technical schools of building. The need for a clear account of the methods and processes of plastering, especially among students and those young plasterers who, during or since the war, have been deprived of learning their craft by experience, has been well catered for.

THE ELECTRICIANS' BLUE BOOK: ELECTRICAL TRADE DIRECTORY, 1951. (London: Benn Brothers, Ltd.) Price 42s.

THIS SIXTY-NINTH EDITION of the Blue Book has been revised throughout and the total number of references increased. The classified section in this edition is not only increased in volume but reference to any particular component or appliance of a given rating is considerably easier to find. The preliminary guide to the sections gives a complete list of names, with the numbers of sections in which entries are to be found. There are sections for most aspects of the trade, together with details on municipal departments and technical education.

*** *Books reviewed in these columns may be obtained on application to the Publisher, "The Builder," 4, Catherine-street, Aldwych, W.C.2. Cash (which should include 6d. to cover postage and packing) should accompany the order.*

EDUCATION FOR INDUSTRY

Productivity Team's Report

FOUR specialist teams have, this year, visited the U.S.A. under the technical assistance programme of E.C.A. to study problems of training for industry, their respective spheres of interest being the training of operatives, the training of supervisors (foremen), the universities and industry, and education for management. The report of the first of these teams, on the training of operatives, was published on November 1 by the Anglo-American Council on Productivity.

In its conclusions and recommendations the report* says that, with the possible exception of some aspects of apprentice training, the team did not find any very revolutionary methods in vogue in the U.S. Such differences as were noted were differences of approach of environment and prosperity, of relationships between employer and employed—characteristics that make up the difference between the American and the British ways of life.

It appears likely, the report states, that an increasing proportion of young people in Britain "will in future continue their full-time education until they are 17 or 18, as does a much larger proportion in America. The majority of the team feels that this tendency can only operate to the advantage of industry and of the individual, provided the instruction in the schools is realistic, and anything which can be done to accelerate it should be encouraged."

There is in the U.S. no nation-wide system, as there is here, of certification for graduates in vocational education, and the team thinks that U.S. industry would benefit from the setting up of federal standards with the award of corresponding certificates.

Liaison with Industry

While the team did not feel that the standards attained by graduates from American schools in technical and related subjects are as high, age for age, as are those in this country, it found in every State visited that most vocational and technical schools have a more effective liaison with local industries than is usual in Britain.

American education of all kinds has been described as being broader and shallower than that in Britain and the team feels that this is certainly true of vocational training. Pupils are not educated to be deeply knowledgeable; they are trained to be effective in a particular occupation. The team is undecided in its collective opinion as to which policy is the better, but the majority favour the American.

Apprenticeship was the aspect of the team's mission which probably gave it most food for thought. A notable point about the American system is the almost complete disregard of the upper age-limit; men can become apprentices even up to the age of 35 and are not expected to begin before they are 18. The team feels strongly that the question of age-limits and periods of training for apprentices should be re-examined very carefully by all industries, particularly now that compulsory National Service has become a permanent feature of British life.

The awarding of credits to apprentices for work at vocational schools, which enable them to shorten considerably the period of shop training, is another American practice which the team recommends industries to investigate. The team was also very favourably impressed by the way in which joint apprenticeship committees are used. The frequent custom in America, particularly in the building industry, of indenturing an apprentice not to an employer but to the local committee, appears to open up considerable possibilities in Britain, where the problem of apprenticeship in small firms is a very pressing one. It has received attention by certain industries in this country but should be carefully considered by others.

The craft unions in America are jealous of retaining high standards and some unions in this country might, with advantage to employer and employed, insist upon higher standards for admission to the ranks of their skilled workers.

An American Paradox

In its chapter on "American education," it is stated: "In industry the team found itself in an atmosphere of hard work, perseverance, thoroughness, enterprise and efficiency. The personnel were highly competent and definite goals had to be achieved. In the schools the team felt that the level of attainment was not high, that there was a lack of well-defined standards and a casual approach to their work by teachers and pupils—nobody was 'on his toes.' How this produces the dynamic, energetic, able men of industry is the paradox of American education."

One reason why the standard of attainment reached in the high schools is lower than in British secondary schools is that the ordinary high schools are completely non-selective.

"American industry," the Report adds, "seems to be steadily moving towards the position where all those in supervisory posts will have college or university degrees, all journeymen and apprentices will be high-school graduates and the majority of the other employees will have had high-school education up to the age of 17 or 18. If we remember, too, that many, perhaps most, of the best pupils from the high schools enter industry (most of our best pupils enter the professions), we may well ponder on the profound effect this trend is having and will continue to have on the efficiency of American industry."

* Copies of the report may be obtained from the Anglo-American Council on Productivity, 21, Tothill-street, S.W.1 (price 3s., post free).

WOLVERHAMPTON HOUSING

Agreement on County Overspill Plan

NEGOTIATIONS between Wolverhampton Corporation housing committee and representatives of Staffordshire County Council and of the Wednesfield and Seisdon R.D.C.s on the subject of the county overspill plan have resulted in a draft agreement being reached. This has been submitted to the Minister of Local Government and Planning. The summary of the provisions of the draft agreement has now been published complete with an appendix showing the first three years' programme. This shows that in each of the three years 1952, 1953 and 1954 the county district councils plan to build 250 houses of various types available for persons nominated by the Corporation.

Slum Clearance Difficulties

There are still over 2,500 occupied houses in Wolverhampton which were considered 12 years ago to be unfit for human habitation, according to Wolverhampton's medical officer of health in his annual report for the year ended 1950. These houses would have been demolished not later than 1942 had it not been for the war. On the present allocation of 50 new houses a year devoted to slum clearance it would take 100 years to deal with the present register of low-standard houses, and the report emphasises the desirability of making an increased allocation of houses for slum clearance at an early date.

With the lapse of time some 3,000 additional houses reached a standard warranting their demolition.

Housing List Shorter

For the first time since the war the number of applicants on the Wolverhampton Corporation housing list shows a decrease; at March, 1951, there were 5,501 applicants, compared with 6,303 at the end of March the previous year. There were 1,156 applicants taken off the live register at the end of the year.

BUILDING MANPOWER

Statistics for 1946-51

THE following table (taken from B.M.P. Weekly Information) shows the labour force (employed operatives of 16 years of age and over) employed in the building and civil engineering industries, according to type of work on which employed:

EMPLOYED OPERATIVES
BUILDING AND CIVIL ENGINEERING INDUSTRIES
Thousands

Date	Total	HOUSING WORK: Industrial agricultural and commercial work (i)	HOUSING WORK: Construction of new houses (including sites preparation)	HOUSING WORK: Conversions, repairs and maintenance	Other work (ii)
June, 1946	890	143	576		171
Dec., 1946	953	161	614		178
June, 1947	978	200	257	302	219
Dec., 1947	1,002	207	273	296	226
June, 1948	1,013	259	249	301	204
Dec., 1948	996	229	221	301	244
Mar., 1949	980	218	221	295	246
June, 1949	1,004	235	226	297	246
Sept., 1949	1,013	227	228		558 (iii)
Dec., 1949	977	222	231		524
Mar., 1950	996	226	236		534
June, 1950	1,006	238	236		532
Sept., 1950	1,009	221	231		557
Dec., 1950	965	202	216		547
Mar., 1951	981	203	223		555
May, 1951	990	214	234		542
June, 1951	1,009	215	238		556
July, 1951	1,003	210	233		560
Aug., 1951	1,009	*	226		*

* Not available.

(i) The figures for "Industrial, agricultural and commercial work" exclude work carried out under annual maintenance licences and local authority licences and work exempted from authorisation and licensing; men engaged on such work are included under the residual heading "Other Work." In consequence, the coverage of these two series has varied with changes in the exemption limits; changes in certain of the limits occurred at November 1, 1948.

(ii) Including work on schools, universities, hospitals and central and local government offices; building work for the Services; etc.

(iii) From August, 1949, the figures of housing conversions, repairs and maintenance refer to family dwelling units only. Earlier figures included work on other living accommodation, such as hostels, barracks, etc.; this now appears under "Other work."

NEWS IN BRIEF

The Building Centre's New Premises

A considerable increase in the size and scope of the permanent (but continually changing) exhibit staged by the Building Centre will be possible from December 3 next, when the Centre opens at new premises in Store-street, Tottenham Court-road, W.C.1. (Tel.: Museum 5400.)

Abbey Restoration

The Bishop of Dorchester has recently announced that the £10,000 appealed for during 1949 to help with the restoration of Dorchester Abbey, Oxfordshire, has been reached by donations and guarantees.

Standard Buildings for British Railways

With the object of producing buildings of good appearance on mass-production lines, standard designs have been prepared for British Railways for various small structures such as signal boxes, lengthmen's huts, and first-aid rooms.

F.M.B. Golfing Society

The annual dinner of the Federation of Master Builders' Golfing Society was held at the Paviours Arms, Westminster, on Friday, October 19. The captain, Mr. I. A. Harris, presided and a pleasant time was enjoyed by a party of 64.

L.T.E. Appointment

Mr. L. E. Hawkins, M.B.E., B.Sc., A.C.G.I., M.Inst.C.E., has been appointed by London Transport Executive assistant civil engineer (structures), with responsibility for the maintenance of all buildings, bridges, structures and earthworks, and for the design and erection of bridge and structural work.

Election of Officers

At the annual general meeting of the Truck and Ladder Manufacturers' Association, held in London on October 11, the following officers were elected for the ensuing year: President, Mr. G. Neild; vice-president, Mr. P. W. Gamble; council, Messrs. G. A. Cayless, P. Crowson, A. C. Drew, T. Gough, W. H. Grundy, W. le Neve Bower, J. H. Smith.

Golfing Society's Dinner

The Building Alliance Golfing Society's first annual dinner since the war is to be held at the Trocadero Restaurant, Piccadilly, on November 30. Mr. Kenneth Horne, the radio entertainer, will be among the principal guests. Applications for tickets should be made to Mr. David T. Hill (W. G. Hill and Son), Monument Station Buildings, King William-street, E.C.4.

Swedish Prefabricated Houses

Sweden's exports of prefabricated houses during the first half of 1951 totalled Kr. 20,000,000 (£1,380,000), as compared with Kr. 8,700,000 for the whole of 1950, and Kr. 35,000,000 in 1946, the previous peak year. The largest buyers are Australia, Saudi-Arabia, Israel and Western Germany, while great interest in purchasing Swedish prefabricated houses is reported from the United States, the Soviet Union and Turkey.

Dartford Tunnel

The Highways Committee of Essex County Council have recommended the Council to inform the Dartford Tunnel Committee that from the point of view of Civil Defence alone, if for no other reason, the local authorities and industries on Thames-side would benefit greatly from the completion of the Dartford Tunnel, and that they should ask the Committee, if they agree with this view, to urge it upon the Minister of Transport.

Heating and Ventilation Year-Book

The fifth issue of the year-book of the Association of Heating, Ventilating and Domestic Engineering Employers, 58, Victoria-street, S.W.1, has been recently published. The first part of this publication deals with articles on research and progress within the industry, together with references to British Standards on new developments. Its purpose is to provide a compact volume of trade information to architects, consultant engineers and others.

Appeal for Disabled

To meet urgent needs, Queen Elizabeth's Training College for the Disabled, Leatherhead, has launched an appeal for funds. The work of the college consists of the training and re-settlement of the disabled in normal industrial employment. Many quantity surveyors, workers-up, builders' clerks and paint spraying workers are among those whom the college has successfully trained. Donations may be sent to the superintendent of the college, Leatherhead Court, Leatherhead, Surrey.

Concrete Block Making

"Concrete Block Making Machines" is the title of the latest "National Building Study" (Special Report No. 17), published by the Stationery Office, price 1s. The report contains the results of an investigation into concrete block making carried out by the Chief Scientific Adviser's Division of the Ministry of Works, which discloses "a need for improvement both in the design of manufacturing plant and in the co-ordination of the various phases of production. In particular, there appears to be considerable reluctance to depart from familiar processes based, in the main, on the pattern and rhythm of making blocks by hand."

Snowdonia National Park

It was announced on October 22 that the Minister of Local Government and Planning had confirmed the Order designating the Snowdonia National Park, but had excluded an area of about 3,600 acres in the neighbourhood of Aberllefenni and Corris; and had added areas of about 1,000 acres to the west of Conway, 475 acres to the east of Pennmaenmawr, the hill Dinas, east of Llanfairfechan, an area of about 135 acres, and the coastal strip between Barmouth and Llanfair, measuring about 7,275 acres. The added areas together measure about 14 square miles, and the total area of the new park measures about 845 square miles.

Improvements at Castle Bromwich

The war-time utility frontage of the British Industries Fair heavier engineering section at Castle Bromwich, Birmingham, is to be scrapped and a new permanent façade of a design more in keeping with the status of one of the largest exhibition buildings in the world is to be erected for the 1952 Fair, to be held from May 5 to 16. Plans and a model of the new façade have now been passed by the B.I.F. management committee of Birmingham Chamber of Commerce and work is to start in the near future. Approval has been given by the various Government Departments concerned to make use of brick and a little stone, together with sufficient decorative features to display the building's functions.

University College Calendar

University College of London University has recently published its calendar for the 1951-52 session. It contains an outline of the history of University College and full details of the facilities available at the College, including the prospectuses of the various Faculties. The Bartlett School of Architecture provides the following courses: (i) B.A. (Architecture) degree course of the University; (ii) the diploma course in architecture; (iii) the certificate course in architecture; (iv) the certificate course in the preservation and restoration of historical buildings; and (v) the certificate course in decoration. In addition, there is an architectural Atelier which provides facilities for students reading for the M.A. or Ph.D degrees in architecture, for the study of advanced architectural design and for post-graduate research.

The Science Museum Library

The scope of the Science Museum Library, South Kensington, is briefly explained in a new leaflet issued by the library. The library has both a reading room and a loan service. The loan service is not normally open to individuals, but rather to corporate bodies. These are asked to make application in writing. The reading room is open to the public from 10 a.m. to 5.50 p.m. on week-days except Bank Holidays. There is normally no difficulty in making a casual visit, but those wishing to use the reading room more systematically should apply for a ticket either at the entrance to the library or in writing to The Director, Science Museum, South Kensington, S.W.7. The Science Library aims at holding all the more important scientific and technical publications, British and foreign, new and old, and books and periodicals. There is, however, an emphasis on periodicals, bibliographies and on up-to-date material generally, reflecting the demands of users. There is also a fine collection of source material on the history of technology and about 18,000 sets of periodicals.

Policy for the Building Industry

Speaking at the Reading branch of the Federation of Master Builders on October 29, Mr. R. Carter, a member of the National Council, said: "The erection of houses, hospitals, schools, factories and all the other buildings necessary for a proper standard of life for a highly industrialised community like ours is outside the realm of party politics. During the past six years the master builders of this country have not been allowed to give of their experience and skill to the full. I believe that with the creation of a new psychological atmosphere, there can be a tremendous upsurge of output in the industry which will benefit all sections of the community. From the Government of the day there must come the minimum of interference and a long-term settled economic policy which does not regard the building industry as a sort of tap which can be turned on and off.

"From the building trades operatives there is required a full day's work for a full day's pay with an acknowledgment that extra work will be rewarded by a properly organised system of payments by results. The British master builders must achieve within their organisations the maximum pitch of efficiency and economy. New techniques in building must be adopted as soon as possible, and as soon as the levels of taxation allow an even greater degree of mechanisation must be put in hand."

LAW REPORTS

Builders Fined for Failing to Deduct P.A.Y.E. on Overtime

CENTRAL CRIMINAL COURT.
BEFORE MR. JUSTICE MCCLURE.

Rex v. W. F. Davey and C. H. Mills.

Walter Frederick Davey, 36, of 58, Clevedon-gardens, Cranford, and Charles Herbert Mills, 46, of Dulverton-road, Ruislip, directors of Messrs. W. F. Davey and Co., Ltd., building contractors, of Great West-road, Hounslow, both pleaded guilty at the Old Bailey on October 22 to four charges of causing a false statement to be made to the Commissioners of Inland Revenue with intent to defraud.

Mr. S. Noakes, prosecuting, said for the past four years the accused had been paying overtime to their workmen without deducting P.A.Y.E., with the result that the Inland Revenue had lost £496 in tax. Davey had, for a number of years, carried on business as a building contractor at Hounslow and Mills was formerly employed as a bookkeeper. Later Mills became a director and secretary of the company and it was he who signed the false returns to the Inland Revenue.

Counsel said the fraud was discovered when an Inland Revenue auditor went through the firm's books. Davey, in a statement, said he had been compelled to do this owing to labour shortages. His workmen had refused to work overtime unless the money was paid in full. "One can appreciate the difficulties in which an employer was placed in the circumstances," commented Mr. Noakes.

Both defendants were men of excellent character.

Mr. Christmas Humphreys, defending, said this practice of paying overtime without deducting P.A.Y.E. had been going on for some time in the building trade, and had become widespread. When Davey and Mills decided to stop it their best employees immediately gave notice and were now working for other firms where exactly the same thing was going on. It was conceded that this was so, and it was no secret that other prosecutions were pending.

Counsel said Davey and Co. were the first firm in Isleworth to build 100 houses after the war. They had contracts with the local council and very heavy pressure was placed upon both defendants to get on with the job. They did get on with it and were pretty successful. And then came the time when the workmen said they would do no more overtime if P.A.Y.E. was deducted.

Mr. Humphreys said had the accused intended to be deliberately dishonest it would have been easy for them to enter in the books a false number of hours overtime worked, but they had not done this.

Two employees who had to be sacked for laziness promptly told the authorities that other workmen were getting overtime free of P.A.Y.E.

Davey and Co. were liable for the £496 tax due to the Inland Revenue and this would be paid by them.

Judge McClure said it was a terrible thing to realise that many people were getting round the law by what was just ordinary cheating. This was a serious matter and he hoped the authorities would be alive to it.

Davey and Mills were each fined £25 and each ordered to pay £50 towards the costs of the prosecution.

Concrete Specialist Loses Appeal

COURT OF APPEAL.
BEFORE LORDS JUSTICES BIRKETT, COHEN AND SINGLETON.

Alexander Justicz v. London Ferro-Concrete Co., Ltd.

A CASE in which it was alleged that a specialist in reinforced-concrete construction had made "a malicious false statement about a London firm's products was the subject of a recent judgment in the Court of Appeal.

Mr. Alexander Justicz, of Woodbourne-road, Edgbaston, Birmingham, appealed against the judgment of Mr. Justice Vaisey, in the King's Bench Division on March 15, 1951, awarding £105 damages and costs to London Ferro-Concrete Co., Ltd., of Vauxhall Bridge-road, Westminster, S.W.

The appeal was dismissed with costs.

Mr. F. W. Beney, K.C., for the appellant, said Mr. Justicz was a native of Czechoslovakia and a naturalised British subject. He was an expert in reinforced-concrete construction and had patented a roof support with what was known as a "scarf" joint. In the belief that this support was not safe in a span exceeding 30 ft., he had patented another method of roof support.

When, in tendering for a particular contract, he learnt that the London Ferro-Concrete Company had had its contract accepted and was apparently to use the support with the "scarf" joint, he wrote a letter to the firm asking for tenders expressing concern at what he described as an "inadequate" design.

Mr. Justice Vaisey held that the statement that the Ferro-Concrete Company's design was "inadequate" was false and that it had been written with malice.

In his judgment, Lord Justice Birkett expressed the view that there was abundant evidence on which Mr. Justice Vaisey could come to his conclusions. There was no ground for the Court of Appeal to interfere with his decision. The appeal should be dismissed. The other Lords Justices agreed.

REMEMBER

HELICON FLOORS

ARE FIRE-PROOF

AND

SOUND RESISTING

Helicon

THE HELICAL BAR & ENGINEERING CO. LTD.
82 VICTORIA STREET, WESTMINSTER, LONDON, S.W.1
Phone: VICtoria 6838
Resident Agents: Birmingham, Middlesbrough, Newcastle
M-W.53

NATURAL LIGHTING

The Need for Continued Research

SUMMING up his presidential address on "The Study of Natural Lighting" at a meeting in London of the Illuminating Engineering Society on October 9, MR. J. G. HOLMES, A.R.C.S., B.Sc., F.Inst.P., said that if, in that society, they intended to encourage closer collaboration between the practising architect and the practising illuminating engineer on problems of natural and artificial lighting, they must learn the architect's approach to these problems and must prepare to answer his questions on technical matters. They should, therefore, give added emphasis to the study of natural lighting in the training of an illuminating engineer, so that he could calculate sky factors as readily as utilisation coefficients or estimate daylight factors as readily as illumination levels. This could only be done by the deliberate action of those individual members who were responsible for guiding the training of entrants into the lighting industry, although some help might be given by the society's education committee. "The techniques of daylighting are valuable teaching material because they put great emphasis on where the light comes from and on its directional quality—daylighting also provides good material for examination questions," Mr. Holmes said.

"Much of the instruction and training in natural lighting must necessarily come from the study of books and technical journals, but it is easy to arrange one or two practical experiments which illustrate these studies, such as the effect of the height of a window on the measured daylight factor or the change in the relative distribution of illumination from natural to artificial light," said Mr. Holmes. "We should not expect to achieve this immediately, but we can decide now on our policy and then hope that the next generation of lighting engineers will be well informed on natural lighting and will be able to make some new contribution to lighting practice.

Industry's Contribution

"A higher level of education in natural lighting can only be maintained if there is continual research into the same subject, and I would again urge that this be undertaken by industrial organisations as well as by the D.S.I.R., which has sponsored most of the British contribution up to the present day. Perhaps this work should be tackled by the larger firms in the building industry, by window frame makers or glass makers, and, if so, I would urge them to join this society and share their experience with us, but the majority of the applied research into illumination practice must be done in the laboratories of the lighting industry. Great benefit would result if these laboratories could include some items relating to natural illumination in parallel with their work on artificial illumination.

"The great merits of fluorescent lighting may seem to make the quality of natural lighting less important, but it is surely more true to say that the better we make our artificial daylight, the more we need to know about natural daylight. Fluorescent lamps have already given us acceptable artificial roof-lights and we may learn in time how to use them to give acceptable artificial windows and how to harmonise the techniques of artificial and natural lighting."

"Window engineering" had justified itself in specialised buildings, but its full realisation might be regarded as too expensive for general use, Mr. Holmes added.

PRICES CURRENT OF MATERIALS*

NOTE.—These prices apply to large quantities of materials at works, at London stations, or site, in London area as stated. Prices for smaller quantities ex merchant's warehouse will, of course, be higher. Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, Etc.

	£ s. d.
First Hard Stocks	10 3 0
Second Hard Stocks	9 13 0
Mild Stocks	8 8 0

All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job.

2½-in. Nominal Phorpres Bricks.	At Maiden Lane Stn. per 1,000 s. d.	To Sites in W.C. District per 1,000 s. d.
Commons	84 9	100 9
Cellular (No del. at present Lon. Stns.)		100 9
Keyed	86 9	102 9
Rustics	109 9	125 9
Cellular Rustics		125 9
Single Bullnose	104 9	120 9
Sandfaced	124 9	140 9
Cortex Facing Brick ...	99 9	115 9

	£ s. d.
Best blue Pressed Staffs. (London Stns.) ...	21 8 6
Do. Bullnose (London Stns.)	22 2 6
Blue Wire Cuts (London Stns.)	19 4 0
Midhurst Lime Bricks (Del. London Sites)	9 0 0
Uxbridge Whites (Del. London Sites) ...	7 10 0

Best Stourbridge Fire Bricks (London Stns.) :—

£ s. d.	£ s. d.
2½ in. ... 20 15 0	3 in. ... 24 16 6

GLAZED BRICKS (London Stns.). The prices given below are now subject to a percentage addition of 50 per cent. for Best, and 45 per cent. for Second quality.

Best White Ivory and Salt Glazed		D'ble Stretchers D'ble Headers	53 0 0 48 10 0
Stretcher	40 0 0	One side & two ends	54 10 0
Headers	39 10 0	Two sides & one end	56 0 0
Quoins, Bullnose & 4½ in. Flats	50 0 0	Splays and Squints	52 0 0

Second Quality, £2 0s. per 1,000 less than best, plus 45 per cent. Cream and buff. £2 0s. extra over white. Other colours, Hard Glaze, £5 10s. 0d. extra over white.

Haulage to site 30s. 1,000.

PARTITION SLABS.

Delivered Central London Area.
HOLLOW CLAY PARTITION BLOCKS.
London Brick Company.

Minimum Lorry Loads. Keyed	s. d.
2 in. per yd. sup. 125 yds.	3 11
2½ in. „ „ 115 „	4 2
3 in. „ „ 105 „	4 8
4½ in. (3 cavity) per yd. sup. 80 yds. ...	6 1
4½ in. (6 „) „ „ 75 „ ...	6 8

Half blocks *add* 1s. per yard super to above prices.

CLINKER CONCRETE.

2 in. per yd. sup.	2 11½	3 in. per yd. sup.	4 0½
2½ in. „ „	3 6	4 in. „ „	5 2

J. H. Sankey and Son. "Cranham".

2 in. per yd. super	5 4
2½ in. „ „	5 10
3 in. „ „	7 0
4½ in. „ „	8 8

Delivered site London.

STONE.

	s. d.
BATH STONE—	
Monks Park...	6 2
St. Aldhelm Box Ground	7 2
Delivered in railway trucks at South Lambeth. G.W.R., per ft. cube.	
DOULTING STONE RANDOM BLOCKS Delivered London ... ... per ft. cube	6 11
BEER STONE, Delivered London per ft. cube	6 6
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly. ... ... per ft. cube	6 11
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.	
HOPTON-WOOD STONE—	
F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks up to 3 ft. 3 in. long and not over 10 cu. ft. ... ... per ft. cube	27 0
Slabs—Random sizes sawn 2 sides, up to 5 ft. long and not over 15 ft. super ½ in. per ft. super	6 10
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super) ... ... per ft. super	11 3
6 in. rubbed two sides, ditto „ „	13 0
3 in. sawn two sides slabs (random sizes) ... ... „ „	5 9
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) ... „ „	3 6
1½ in. to 2 in. ditto ... ... „ „	3 4
HARD YORK—	
Delivered at any Goods Station, London.	
Scrappled random blocks per ft. cube	15 9
6 in. sawn two sides landings to sizes (under 30 ft. super) ... ... per ft. super	12 10
6 in. rubbed two sides, ditto „ „	14 10
4 in. sawn two sides slabs (random sizes) ... ... „ „	8 5
3 in. ditto ditto ... ... „ „	6 5
2 in. self-faced random flags per yd. super	23 1

CEMENT.

	£ s. d.
Best British Portland Cement. Standard Specification delivered Charing Cross area. 6-ton loads and upwards site..... per ton	4 15 3
1- to 6-tons site (including non-returnable paper bags or jute sacks)	5 0 3
"Ferrocrete" Rapid Hardening Cement at 6-ton loads and upwards site	5 3 3
1- to 6-tons site (including non-returnable paper bags or jute sacks)	5 8 3
"Aquacrete" Water Repellent cement, 32/6 per ton on ordinary "Blue Circle" prices (including non-returnable paper bags).	
Red, Buff or Khaki "Colorcrete" in 6-ton lots (including non-returnable paper bags)	6 16 9
Other colours, according to colour. In 4-ton lots from 190/3 to 414/3 per ton (including paper bags).	
"Snowcrete" White Portland Cement (including non-returnable paper bags).....	12 12 9
Under one ton ..... per cwt.	15 0
"417" Cement (Ultra Rapid Hardening) Delivered Site Charing Cross Area in 6-ton lots and upwards (including non-returnable paper bags)	6 7 9
Super Cement (Waterproof) in London Area 32/6 per ton above Portland Cement, including bags.	
Cullamix Tyrolean Finish, £8 14s. 3d. to £10 7s. 9d. (1-ton lots and upwards, including cost of paper bags).	
Lightning and Cement Fondu Brands, High aluminous cement, 1 ton lots and up 255/- per ton, packages 22/- per ton extra.	
White Keen's or Parian Cement.....	9 9 0
Pink Keen's or Parian Cement	9 4 0
D/D site in 1-ton loads.	

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	6 14 3	Sirapite Coarse	6 18 0
„ White	7 2 0	„ Fine	7 6 0

Above prices for 1-ton loads and over London Area.

Blue Lias Lime, inc. bags 6-ton lots	6 8 3	Hydrated Lime, 6-ton lots	5 9 0
Granite Chips, 6-ton lots ...	2 3 0	Lump, Lime, 6-ton lots	4 8 6
		Hair, per cwt. ...	4 17 6

Stourbridge Fireclay in paper bags 6-ton lots at railway depot 5 18 0

STANDARD TEXT BOOKS

MODERN HOUSING ESTATES
By STANLEY GALE.
Covers every aspect, both technical and legal, affecting their planning and construction. Illustrated by photographs, drawings and plans.
35s. net (by post 36s.)

BUILDING CONSTRUCTION AND DRAWING
By GEORGE A. MITCHELL.
Part I. Elementary Course. 20th Edition. Revised and re-illustrated, 650 pages, 1,100 illustrations.
10s. 6d. net (by post 11s.)
Part II. Advanced Course. 16th Edition. Over 1,000 pages and 800 illustrations.
15s. net (by post 15s. 11d.)
"... unquestionably the best guide which any student can obtain at the present moment."—*The Builder.*

MODEL BUILDING BYELAWS ILLUSTRATED
By G. E. MITCHELL.
2nd Edition, revised.
Indispensable to all concerned with the Building Trade, containing the full text of the Model Building Byelaws, with notes and diagrams.
15s. net (by post 15s. 9d.)

HARRIS'S ROOFING TABLES
Contains all lengths, cuts and levels that the average roof worker will require. Suitable to all makes of Steel Square.
3s. 6d. net (by post 3s. 9d.)

Write for new catalogue of books on Building Technique, now ready.

B. T. BATSFORD LTD.
Retail Dept.,
15 North Audley Street, London, W.1

PLASTER AND WALL BOARDS.

Gypsum Plaster Lath or Base Board, ⅜ in. thick, 600 yds. and over in one delivery 2/2½–2/4½ per yd. according to works.

Gypsum Plaster Wall Boards, 3 and 4 ft. wide, 6 to 12 ft. ½ in. thick, 600 yds. and over in one delivery 2/5½–2/7½ per yd. according to works.

Carriage paid to site.

SAND.

D/D site in full lorry-loads. Average of prices for Boroughs of Westminster, Paddington, Holborn and St. Pancras.

		s. d.
Pit Ballast	per yd.	18 8
Pit Sand	„	17 6
Washed Sand	„	19 10
¾ in. Shingle	„	16 11
¾ in. Broken Brick	„	19 3
Pan Breeze	„	9 6

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons .....Per 1,000

f.o.r. London

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire districts	11 6 0
Ditto. hand-made, ditto	13 7 0
Ornamental ditto	14 0 6
Hip and valley tiles—Hand-made	1 2 0
(per dozen)—Machine-made	1 1 0

NOTE.—Breakage in transit, purchasers' responsibility.

SLATES.

First quality slates from Penrhyn or Portmadoc carriage paid in full truck loads to London Rate Station.

Per 1,000 actual	£ s. d.		£ s. d.
24 by 12.....	88 14 0	18 by 10.....	45 10 3
22 by 12.....	77 0 0	18 by 9.....	40 14 0
22 by 11.....	69 11 6	16 by 10.....	40 11 3
20 by 12.....	64 9 9	16 by 8	31 4 3
20 by 10.....	58 3 9		

NOTE : Breakage in transit, purchasers' responsibility.

PLUMBERS' BRASS WORK.

Delivered in London.
M.O.H.
S.D. BIB COCKS CRUTCH HEAD, FOR IRON.
½ in. 86/3 ¾ in. 132/- per doz.
TOILET BIB COCKS FOR IRON.
½ in. 135/- ¾ in. 182/6 per doz.
S.D. STOP COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
86/-	120/-	186/-	368/-	548/-	941/-	per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
124/-	165/-	263/-	488/-	703/-	1253/-	per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
26/-	32/-	55/-	83/-	128/-	202/-	per doz.

HEAVY CROYDON BALL VALVES.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	
226/-	348/-	481/-	732/-	903/-	per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.	
26/-	30/-	45/-	89/-	116/-	124/-	per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.	
31/-	42/-	72/-	87/-	109/-	per doz.

LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1½ x 6 lb.	1½ x 6 lb.	2 x 7 lb.	3 x 7 lb.	
Lead P.	88/6	110/-	197/-	307/-	per doz.
Lead S.	106/-	132/-	216/-	408/-	per doz.

SOLDER—Plumbers, 5/- lb. Tinmens, 7/6 lb. Blow pipe, 7/- lb.

Copper Tubes	2/2 per lb. basic.
Brass Tubes	2/1½ per lb. basic.

Basic prices are subject to extras.

GLUE.

		£ s. d.
Best Scotch Glue	per ½ cwt.	5 3 0
Croid Glue	28 lb.	2 5 0

VARNISHES, Etc.

		Per gallon.
Oak Varnish	Outside	1 14 0
Fine do.	„	1 14 0
Fine Copal	„	1 14 0
Pale Copal	„	1 16 0
Floor Varnish	Inside	1 14 0
Fine Pale Paper	„	1 18 0
Hard Drying Oak	„	1 14 0
Fine Hard Drying Oak	„	1 15 0
Fine Copal Varnish	„	1 16 0
Best Do.	„	1 16 0
Best Japan Gold Size.....	„	1 8 0
Best Black Japan	„	1 4 0
Brunswick Black		1 0 0
Berlin Black		1 8 0
Knotting (patent)		1 17 0
French and Brush Polish		1 9 0
Liquid Dryers in Terebene		1 8 0

* The information given on these pages has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(contd.)
See Note at top of preceding page.

PAINTS, Etc.

		£	s.	d.
Raw Linseed Oil (5 galls.)	per gallon		21	9
Boiled Linseed Oil (5 galls.)	„		22	3
Genuine White Lead (free kegs)	cwt.	11	3	6
Genuine White Lead Paint (tins free)	gall.	3	9	0
Genuine Red Lead	cwt.	10	19	3
Putty (free packages)	cwt.	2	19	0
Size XD quality	fkn.		9	3

Turpentine substitute can be obtained and prices vary according to quality from 4/1 per gallon in 40 gallon barrels and 4/11 per gallon in 5 gallon drums upwards.

METALS.

Joists, Girders, &c., to London Station	Per ton £	s.	d.
R.S. Joists, cut and fitted	45	0	0
Plain Compound Girders	50	0	0
Plain stanchions	55	0	0
Plain compound stanchions	58	0	0
In Roof Work, Trusses and Purlins	70	0	0

Note.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS. — Ex London Stock per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
½ in.	38	14	0	¼ in.	36	9	0
⅝ in.	37	19	0	⅜ in. to 2½ in.	35	2	0
⅞ in.	37	4	0				

W.I. TUBES.

Tubes and Tubulars.
Galv.
Class A. List price + 1½ per cent.
Class B. „ + 9½ „
Class C. „ +24½ „
Black.
Class A. „ —32½ „
Class B. „ —23½ „
Class C. „ — 12 „

C.I. Half-Round Gutters.—London Prices Ex-Works, per yd. in 6-ft. lengths.

	Gutters.	Nozzles.	Stop ends.
3 in.	2/7	2/3	7d.
3½ in.	2/10	2/7	7d.
4 in.	3/7	2/9	1/1
4½ in.	3/11	3/2	1/2
5 in.	4/6	3/6	1/4

O.G. Gutters.

3 in.	3/4	3/0	9d.
3½ in.	3/9	3/0	1/1
4 in.	4/1	3/2	1/2
4½ in.	4/6	3/7	1/4
5 in.	4/10	4/3	1/6

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipes.	Bends.	Branches.
2 in.	5/3	2/9	4/1
2½ in.	5/7	3/2	4/10
3 in.	6/2	3/11	5/11
3½ in.	7/1	4/8	6/9
4 in.	8/2	5/7	8/2

L.C.C. Coated Soil Pipes.—London Prices, ex-stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches.
2 in.	6/4	4/10	5/11
2½ in.	6/8	5/5	7/3
3 in.	7/5	5/11	8/9
3½ in.	8/4	7/3	10/1
4 in.	9/6	8/2	11/9

Above prices for gutters, rain water and soil pipes for under 3-cwt. lots only. Lots over 3 cwt. see list No. 3100 amended to August 13, 1951, plus 81 per cent. and tonnage allowance—4-ton lots 5 per cent. 2-ton lots 2½ per cent.

L.C.C. Coated Drain Pipe.

	cwt. qr. lb. in 9 fts.	per yd.	Bepds.	Branches.
4 in.	1 1 17	17/4	12/0	21/1
6 in.	2 0 1	25/11	24/11	43/1

Iron.—Staffordshire Crown, Merchant quality	Per ton basis in London. £	s.	d.
	36	0	0
Iron.—Staffordshire Marked Bars	44	15	0
Mild Steel Bars	31	1	0
Mild Steel Hoops	32	8	6

	Ex-Merchants Stock per ton (two-ton) lots £	s.	d.
Soft Steel Sheets C.R. and C.A.—			
20-gauge	38	9	0
24-gauge	39	14	0
26-gauge	40	14	0
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—			
20-gauge	51	4	6
24-gauge	53	4	6
26-gauge	55	19	6
Galvanised Flat Sheets, C.R. and C.A.—			
20-gauge	52	4	6
24-gauge	54	4	6
26-gauge	56	19	6

	Per ton £	s.	d.
Cut Nails, 3 in. and up, 1 ton lots	50	5	0

All Net.

Metal Windows.—Standard Metal Windows, B.S. 990. Prices on application. British Metal Window Manufacturers' Association Ltd.

LEAD, Etc.

(Deliveries in London 1 ton)	Per ton £	s.	d.
Lead—Sheet, English, 3½ lb. and up	199	0	0
Pipe in coils	200	5	0
Soil pipe	203	5	0
Compo pipe	201	15	0

Note.—Country delivery 10s. per ton extra, lots under 3 cwt. 6s. per cwt. extra, and over 3 cwt. and under 5 cwt. 4s. per cwt. extra, over 5 cwt. and under 1 ton 2s. per cwt. extra. Extra if cut to size. Old lead, ex-London area per ton £160 15s. 0d. Buyers pay carriage.

GLASS.

SHEET GLASS, ORDINARY GLAZING QUALITY CUT SIZES.

	Per ft. Super. d.
18-oz.	4½
24-oz. clear	5½
26-oz.	7½
32-oz.	9½

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES,

Over 500 ft. super of all kinds.	Per ft.
Rolled plate, ¼ in.	7½
Rough cast, 3/16 in.	8½
Rough cast, ¼ in.	8½
Figured rolled, and Cathedral white	7½
Figured rolled, and Cathedral tinted	10½
Reeded, Broad Reeded, Cross Reeded and Major Reeded, ¼ in. thick	9½
	d.
Wire cast, ¼ in. thick	9½ per ft.
Georgian Wired Cast	10 „

HOLLOW GLASS BLOCKS	s.	d.	
P.B. 2—5½ in. x 5½ in. x 3⅞ in.	2	6	each net
P.B. 3—7½ in. x 7½ in. x 3½ in.	3	10	„
P.B. 32—7½ in. x 7½ in. x 3½ in.	3	10	„
Radiused Corner Brick to match up with—			
P.B. 2	4	6	„
P.B. 3	6	0	„
P.B. 32	6	0	„

TIMBER, SOFTWOODS and HARDWOODS.

SOFTWOOD.

Carcassing £105—£115 per Standard
Joinery £120—£125 „ „

Fibre Building Boards

A leaflet entitled Fibre Building Boards Register has been published by the Middlesex Publishing Co., Ltd. The publishers believe that this is the first attempt to classify the many brands of fibre building boards in the country. Information on different types and standard sizes together with the names and adresses of producers is contained in the register.

MIDDLESEX COUNTY COUNCIL

MOSS HALL C.P. SCHOOL, FINCHLEY, MIDDLESEX

County Architect: C. G. STILLMAN, F.R.I.B.A.
Contractors: W. S. TRY LTD.

METAL WINDOWS
GLASS & GLAZING

ANOTHER CONTRACT

by

AYGEE

England's Largest Glazing Contractors

LONDON, S.E.1
WATerloo 6314 (10 lines)

TRADE NEWS

Mechanical Close Hacking

A section of the fire-damaged concrete floor in one of the hangars at London Airport that has been prepared for resurfacing by means of a type of apparatus, embodying four pneumatic drills, evolved by the Metropolitan Construction Co., Ltd., is shown below; 1,700 sq. yds. at the airport have been prepared in this way by

See "Mechanical Close Hacking."

the company. The method, known as "Mettexture," has gone far to overcoming the heavy expense included in the close hacking of matured concrete to provide a key for new material. The method has also been employed to produce a non-skid surface on concrete roads at traffic junctions.

Forty-six Years' Service

Mr. Geo. R. Wareing has retired from the board of Wareing Bros. and Co., Ltd., Bolton, after 46 years' service. He was the founder of the firm and a well-known figure in the oil and paint trade. His place will be taken by his son, Mr. Harold Wareing.

Five-Day Week

From the week commencing October 22, the head office at Mill Mead-road, N.17, of Keith Blackman, Ltd., has begun to operate on a five-day week basis, thus:—Mondays-Thursdays, 8.45 a.m. to 5.30 p.m.; Fridays, 8.45 a.m. to 6 p.m.

"Heads and Threads"

The summer edition of "Heads and Threads," the official journal of the British Bolt, Nut, Screw and Rivet Conference, has been issued. Among the special features which it contains are an account by E. J. Wiley of the development of the forging methods used in bolt and nut manufacture up to 1923, an article by H. A. Cummings called "Private Enterprise and Industrial Efficiency," and a technical note by D. G. Broscomb, B.Sc., A.M.I.Mech.E., on the modern stiff nut.

RATES OF WAGES IN THE BUILDING TRADE [AS FROM OCT. 1, 1951]

(Every endeavour is made to ensure accuracy, but we cannot be responsible for errors)

KEY TO SCHEDULE OF GRADE RATES.

Grade Classification,	A	A1	A2	A3
Craftsmen	3/1½	3/1	3/0½	3/-
Labourers	2/8	2/7½	2/7	2/6½

Town.	Grade.
Aberavon	A
Aberdare	A
Abergavenny	A
Abingdon	A2
Accrington	A
Addlestone	A
Aldeburgh	A2
Aldershot District	A2
Alfreton U.D.	A
Alnwick	A1
Altrincham	A
Amble	A1
Amersham	A
Ammanford	A
Andover	A2
Ardingly	A2
Arundel	A2
Ascot	A2
Ashby-de-la-Zouch U.D.	A
Ashby Woulds U.D.	A
Ashford (Kent)	A2
Ashford (Middlesex)	A
Ashington	A
Ashtead	A
Ashton-under-Lyne	A
Aspatria and Brayton	A2
Atherstone (parts of)	A1
Aylesbury	A2
Aylesby (Yorks)	A
Aylesham	A2
Bagshot	A2
Bakewell U.D.	A2
Banbury	A2
Barnard Castle U.D.	A
Barnoldswick U.D.	A1
Barnsley	A
Barrow-in-Furness	A
Barrow-upon-Soar R.D. (exc. Thrussington A2)	A
Barry	A
Basford R.D. (exc. Willough-by-on-the-Wolds A2)	A
Basingstoke	A1
Bath	A
Batley	A
Baxterley	A1
Beaconsfield & District	A1
Beamish	A
Bearl	A
Bearpark	A
Beccles	A2
Bedale R.D.	A
Bedford	A
Bedlington	A
Bedwas	A
Beeston & Stapleford U.D.	A
Belper U.D.	A
Belton	A
Berkhamsted	A
Berrington	A1
Berwick District	A
Beverley	A
Bexhill-on-Sea	A2
Biggleswade	A2
Billericay	A
Billing	A
Billingham U.D.	A
Bilsthorpe	A
Birchington	A2
Birkenhead	*
Birmingham C.B.	†A
Bishop Auckland	A
Bishop's Stortford	A
Bispham	A
Blackburn	A
Blackpool	A
Blackwell R.D.	A
Blaydon U. D.	A
Blidworth	A
Blyth	A
Bognor Regis	A2
Boldon U.D.	A
Bolsover U.D.	A
Bolton	A
Bourne End	A1
Bournemouth District	A
Bracknell	A2
Bradford	A
Bradford-on-Avon	A2
Braintree	A2
Breconshire, County of	‡A2
Brent Knoll	A2
Brentwood	A
Bridlington	A
Brierfield	A
Brighouse	A
Brighton	A
Bristol	A
Broadstairs	A2
Bromsgrove U.D.	A
Brough	A
Broughton (Cheshire)	A
Buckley	A
Bungay	A2
Burnham-on-Crouch	A2
Burnley	A
Burton-on-Trent C.B.	A
Bury	A
Bury St. Edmunds	A1
Buxton	A1
Byfleet	A1
Calder Valley	A
Cambridge	A
Cannock U.D.	A
Canterbury	A2
Cardiff	A
Cardiganshire, County of	‡A2
Carlisle	A
Carmarthenshire, Cnty.of	‡A2
Carnarvonshire, Cnty of	‡A3
Carnforth	A
Castleford	A
Caterham	A
Chapel-en-le-Frith	A1
Charmy Down	A
Chatham & District	A1
Cheadle (Staffs) R.D.	A
Chelmsford	A
Cheltenham	A
Chepstow	A1
Chertsey	A
Chester	A
Chesterfield M.B.	A
Chesterfield R.D.	A
Chester-le-Street U.D.	A
Chichester	A2
Chippenham (inc. Chippen-ham Within and Harden-huish)	A2
Chorley	A
Clacton	A1
Cleethorpes	A
Clevedon	A1
Cleveleys	A
Clitheroe	A
Coalville U.D.	A
Cobham (Surrey)	A
Colchester	A
Colne	A
Colwyn Bay	A1
Congleton	A1
Consett	A
Conway	A1
Cornwall, County of	‡A2
Coventry C.B.	A
Cranbrook	A2
Cranleigh	A2
Crawley (Sussex)	A2
Crewe	A
Cromer	A1
Crowborough	A2
Cuckfield	A2
Dalton-in-Furness	A
Darlington District	A
Darwen	A
Deal	A2
Denbigh Town	A2
Derby C.B.	A
Devizes	A2
Devon, County of	‡A2
Dewsbury	A
Didcot	A2
Diss	A2
Doncaster C.B.	A
Dorking	A1
Dorset, County of (except-ing Poole and Wimborne A1)	A2
Dover	A2
Dovercourt	A
Driffield U.D.	A1
Droitwich M.B.	A1
Dudley M.B.	A
Dunstable	A
Durham City	A
Eastbourne	A1
E. Glam. & Mon. Val.	A
East Grinstead District	A2
Eastwood (Notts.) U.D.	A
Ebbw Vale & District	A
Edenbridge	A2
Ely	A2
Epping	A
Exeter	A1
Fakenham	A2
Falmouth	A2
Fareham	A
Faversham	A2
Felixstowe	A1
Filey U.D.	A
Fleetwood	A
Flint	A
Folkestone	A2
Frinton	A1
Frome	A1
Gainsborough R.D. (Mid. pt.)	A2
Gateshead	A
Gillingham (Kent)	A1
Glossop	A
Gloucester	A
Gloucestershire, Cnty. of	‡A2
Godalming	A2
Goole M.B.	A
Gosport	A
Grantham M.B.	A
Gravesend	A
Great Yarmouth	A
Grimsby C.B. & R.D. (part)	A
Grimsby R.D. (remainder)	A2
Guildford District	A2
Guilsborough	A1
Guiseley	A
Halesowen M.B.	A
Halifax	A
Halstead	A2
Haresfield	A1
Harlow	A
Harpenden	A
Harrogate	A
Hartlepool	A
Harwich	A
Haslemere	A2
Hastings	A2
Hatfield (Herts.)	A
Haywards Heath	A2
Hemel Hempstead	A
Henley-on-Thames	A2
Hereford	A2
Herefordshire, Cnty. of	‡A2
Herne Bay	A2
Hertford	A
Hexham U.D.	A
Heysham	A
High Wycombe	A1
Highworth	A2
Hinckley U.D.	A
Hitchin	A
Hoddesdon	A
Horley	A2
Horsham	A2
Horwich	A
Huddersfield	A
Hull	A
Hunstanton	A2
Huntingdon (Staffs)	A
Ilkley	A
Ingatestone	A1
Ipswich	A
Isle of Sheppey	A2
Isle of Thanet	A2
Isle of Wight	A2
Jarrow M.B.	A
Keighley	A
Kendal	A
Kenilworth U.D.	A
Kettering M.B.	A
Keynsham	A
Kidderminster M.B.	A
King's Lynn	A1
Kingskerswell	A1
Kingsteignton	A1
Kirkham	A
Knaresborough U.D.	A
Knowle	A1
Lancaster	A
Leamington M.B.	A
Leatherhead	A
Leeds	A
Leicester C.B.	A
Leighton Buzzard	A2
Letchworth	A1
Lewes	A2
Lichfield M.B.	A
Lincoln C.B.	A
Littlehampton	A2
Liverpool	*
Llandudno	A1
Llanelly	A
London	*
Long Eaton	A
Loughborough M.B.	A
Louth M.B.	A2
Lowestoft	A
Loxton	A2
Luton	A
Lynenam (Devon)	A2
Macclesfield	A
Maidenhead	A1
Maidstone	A1
Maltby	A
Maldon (Essex)	A1
Malvern U.D.	A2
Manchester	A
Manningtree	A1
Mansfield M.B.	A
March	A2
Margate	A2
Market Harborough	A1
Maryport	A
Matlock U.D.	A1
Melksham	A2
Melton Constable	A2
Melton Mowbray U.D.	A1
Merthyr	A
Middlesbrough	A
Middleton	A
Middlewich	A
Milford Haven	A1
Morecambe	A
Morley	A
Mundesley	A2
Nantwich	A
Nelson	A
Newark-on-Trent R.D.	A1
Newbury	A2
Newcastle-on-Tyne	A
Newcastle-under-Lyme	A
New Forest District	A1
Newmarket	A1
Newport, Mon.	A
Newport Pagnell	A2
Newton Abbot	A1
Northallerton Dist.	A
Northampton C.B.	A
North Shields	A
Norton Radstock	A1
Norwich	A
Nottingham C.B.	A
Nuneaton M.B.	A
Oakham U.D.	A2
Oldham	A
Ongar	A
Ormskirk	A
Ossett and Horbury	A
Oxford	A
Oxted	A1
Paignton	A1
Peterborough	A
,, Soke	A1
Pickering	A3
Plymouth	A
Pontefract	A
Pontypridd District	A
Portishead	A
Portland Stoneyards	A
Portsmouth	A
Port Talbot	A
Preston	A
Pudsey	A
Pulborough	A2
Radnorshire, County of	‡A2
Ramsgate	A2
Rayleigh	A
Reading	A
Redcar B.	A
Redditch U.D.	A
Redhill and Reigate	A
Ripon	A3
Rochdale	A
Rochester	A1
Rotherham	A
Rugby M.B.	A
Saffron Walden	A2
St. Albans	A
St. Helens	A
St. Neots	A2
Salisbury City	A2
Salisbury Plain	A2
Sawbridgeworth	A
Saxmundham	A2
Scarborough	A
Scunthorpe	A
Selby	A
Sevenoaks	A1
Sheerness	A2
Sheffield	A
Shipley	A
Shoeburyness	A
Shoreham	A1
Shrewsbury M.B.	A
Sittingbourne	A2
Skegness U.D.	A1
Skipton U.D.	A
Sleaford U.D.	A2
Slough	A1
Smethwick C.B.	†A
Snettisham	A2
Somerset, County of	‡A2
Southampton	A
Southend-on-Sea Dist.	A
Southport	A
South Shields C.B.	A
Spalding U.D.	A2
Stafford M.B.	A
Staines	A
Stamford M.B.	A1
Stantonwick	A
Stevenage	A
Stockport	A
Stockton R.D.	A
Stockton-on-Tees	A
Stoke-on-Trent C.B.	A
Stoke Orchard	A1
Stourbridge M.B.	A
Stourport U.D.	A
Stowmarket	A1
Stratford-on-Avon M.B.	A1
Sunderland District	A
Sunningdale	A1
Sutton Coldfield M.B.	A
Swaffham	A2
Swanage	A2
Swansea	A
Swindon	A1
Swinton U.D.	A
Tamworth M.B.	A
Tenterden	A2
Tewkesbury	A1
Thames Haven	A
Thetford	A2
Thorpe Bay	A
Thurrock U.D.C. Area	A
,, North of, to Billericay	A
Tilbury	A
Todmorden	A
Tonbridge	A1
Torquay	A1
Totnes	A1
Trowbridge	A2
Tunbridge Wells	A1
Tynemouth C.B.	A
Uppingham (Salop)	A1
Uttoxeter U.D.	A2
Wakefield	A
Wallsend B.	A
Walsall C.B.	A
Walsden	A
Walton-on-Naze	A1
Ware	A
Warminster	A2
Warrington	A
Warwick M.B.	A
Wellington R.D.	A1
Wells (Norfolk)	A2
Welwyn	A
Welwyn Gar. City	A
West Bromwich C.B.	A
Westbury	A2
Westcliff-on-Sea	A
Westerham	A1
Weston-super-Mare	A1
Weybridge	A
Weymouth	A1
Whitby U.D.	A1
Whitstable and District	A2
Wickford	A
Widnes	A
Wigan	A
Wigton	A2
Willington	A
Wilmslow	A
Wilts, County of	‡A2
Winchester	A1
Windermere	A3
Windsor and Eton	A1
Wisbech	A2
Witham	A1
Woking (District)	A1
Wokingham	A2
Wolverhampton C.B.	A
Woodbridge	A2
Worcester C.B.	A
Workington	A
Worksop M.B.	A
Worthing	A2
Wrexham (incl. Cefn)	A
Wroughton	A1
Wylam	A
Wymondham	A2
York	A

* For Birkenhead, Liverpool, and London the rates are:—Craftsmen, 3s. 3d.; Labourers, 2s. 9½d. In the case of London the rate beyond the 12-mile radius is:—Craftsmen, 3s. 2½d. Labourers, 2s. 9d.

† Plus 2d. per working day.

‡ This is the County rate and applies except where higher grades are stated.

NOTE.—Carpenters, Joiners and Plumbers in all towns and districts receive 2d. per day Tool Allowances.

WOMEN'S RATES.—In all districts throughout the country the rate of wages for women engaged in craft processes is 2s. 3½d. per hour. Women introduced to carry out work other than craft processes, 1s. 11½d. per hour.

For Building Trade Wages in Scotland see page 604

The Scottish Builder

An Architect's Appointment

MR. IAN GORDON LINDSAY, B.A., A.R.S.A., F.R.I.A.S., F.S.A.(Scot), has been appointed as a member of the Royal Commission on Ancient and Historic Monuments and Constructions in Scotland. The recommendation has been made by the Secretary of State for Scotland and has been approved by the King.

Mr. Lindsay studied at Cambridge School of Architecture and is the author of a number of books on burgh architecture in Scotland. Amongst his restoration works of ancient buildings are Pluscardine Priory, Iona Cathedral and Cannongate Church, Edinburgh.

Modified Plan for E. Kilbride

THE REARMAMENT PROGRAMME has brought about a modification in the original plan for industry at the new Scottish town of East Kilbride. Members of the Scottish branch of the Town Planning Institute who held their autumn conference there were told this by Sir Patrick Dollan, chairman of the Development Corporation.

MR. D. P. REAY, chief architect, said that production in the Rolls-Royce factory was expected to start in August-September of next year although the site for building work was only being prepared. Next month (November) work would start on the preparation of the neighbouring site for the factory of John Deere and Co.

These two projects would increase the number of jobs in East Kilbride by 1,500 by the end of 1952 and add an additional 1,000 jobs yearly for the succeeding three years. This rate of increase outstripped their original housing programme which meant that many workers would have to travel from neighbouring districts to East Kilbride. Their present rate of completing houses stood at 300 a year and they estimated that they would reach the 1,000 rate by early 1954.

They had learned, said Mr. Reay, that the weather, in combination with the topography —the town site was extremely undulating— was constructionally rather more important than perhaps they first thought. They had also found that although the principles embodied in their master plan were all important, the planning attitude of mind was just as important, and had to be applied to circumstances which were constantly changing, and to a whole range of factors, which by their very nature could not be planned at all.

Although it was useful and essential to have a top drawer plan always at hand for one particular year, and for the next five years, it was also advisable to have a number of alternative plans to those contained in the bottom drawers.

COL. H. P. CART DE LAFONTAINE, London, president of the institute, who spoke on the international aspects of the institute's work, referred to the need for the closest co-operation between all engaged in the building trade—from architects and administrators to the men on the job—if they were to achieve adequate results.

There ought, he thought, to be a limit to cheeseparing economies, in particular to joinery work. In some scheme houses, if one banged on the doors the windows blew open. He felt that more attention should be given to the final cost of maintenance, because it was in that direction that they always found where true economy lay.

MR. A. T. MCINDOE, chairman of the Scottish branch, presided and members made a tour of the building site as the guests of the Development Corporation.

Development Plans

ONE of the first County Development Plans in Scotland was approved by the Fife County Council Planning Committee at its October meeting. The plan covers the Levenmouth area of the county, which embraces the burghs of Buckhaven and Methil and Leven, as well as the new township of Kennoway, which is being built by the county council. The area embraces part of the Fife coalfield, which is the richest coalfield in Scotland. The population of the area is 43,000. After approval by the full council, the plan is to be submitted to the Secretary of State for Scotland in November.

Low-Cost Housing

EXPERIMENTAL terrace houses with no hall and fewer fittings now being built to Department of Health plans at Toryglen, Glasgow, and Sighthill, Edinburgh, were praised and criticised at the annual meeting in Largs of the Scottish National Housing and Town Planning Council.

The experiment was described by MR. R. GARDNER-MEDWIN, chief architect and planning officer of the Department of Health in an address on "Low-cost Housing." In building these prototypes, he explained, the Department were trying to modify existing standards in order to produce houses more cheaply and make available materials go further. There were eight houses in a terrace. They did not expect the prototypes to be copied slavishly, but hoped the ideas in them might start a fresh line of approach by local authorities. The four-apartment houses would cost £130 less than the present average, and the three-apartment £100 less, and they hoped to get the same results from less space. It was not suggested that the experiment was the answer to low-cost building. It was one answer among many, and he hoped it would be seriously considered by local authorities.

The height of the ground floor ceilings in the prototypes is 7 ft. 9 ins. and that of the upstairs ceilings 7 ft. 6 ins. There was no evidence, said Mr. Gardner-Medwin, that the lower ceilings were destructive to health and there might be something to be said for them psychologically and also physically from the point of view of comfort. The size of the experimental three-apartment was 680 sq. ft. against the standard size of 770, and that of the four-apartment 860 against 930.

MR. J. C. HILL, Edinburgh, representative of the National Federation of Building Trades Operatives, said he did not see how they could make progress by going backward. They were told the prototype houses were the result of a visit to Holland. He suggested that next time a trip should be made to Central Africa, where the Department would see houses in which it was no trouble to go from the bedroom to the living-room or kitchen. One just stayed where one was.

"How can you improve a house by taking away the hall space?" he asked. "You are taking away breathing space and elbow room. I think doctors will have a busy time dealing with claustrophobia."

BAILIE W. R. INGRAM, housing convenor, Dundee, said Mr. Hill was living in the Victorian era. They had to meet the needs of the times. They had the problem of people without homes of any kind, and people living in houses that were a disgrace to civilisation.

"Here is an attempt to give these people a chance in life, and I do not think it would be a serious loss to do away with some of the fittings. In Dundee 200 tenants have asked us to take away their wash boilers."

COUNCILLOR ALEX. MACPHERSON-RAIT, housing convenor, Glasgow, said one thing he had not heard mentioned was the output of building operatives. He was not blaming the trade unions, or building contractors, but from 1914 to 1939 output fell by 15 per cent., and from 1939 till the present it had fallen by 30 per cent.

"Surely there is a field for some kind of investigation. Every committee or commission seem to dodge it. If we get the solution for this fall we will be on the way to the answer to cheaper houses."

MR. J. BLACKBURN, Burgh Architect and Planning Officer, Inverness, said the Department should be congratulated in going forward with the experiment. He thought

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from March 5, 1951. Every effort is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification — A Craftsmen ..... 3/1½ — Labourers 2/8

Aberdeen ..... A	Dumfriesshire ..... A	Inverness ..... A	Peterhead ..... A
Ayrshire ..... A	Dundee ..... A	Inverurie ..... A	Renfrewshire ..... A
Banff ..... A	Dunoon ..... A	Kincardineshire ..... A	Rothesay ..... A
Berwickshire ..... A	East Fife ..... A	Kinross-shire ..... A	Roxburghshire ..... A
Bridge of Allan ..... A	East Lothian ..... A	Lanarkshire ..... A	St. Andrews ..... A
Broughty Ferry ..... A	Edinburgh ..... A	Midlothian ..... A	Selkirkshire ..... A
Clackmannanshire ..... A	Fifeshire ..... A	Monifieth ..... A	Stewartry ..... A
Doune ..... A	Forfarshire ..... A	Moray and Nairn ..... A	Stirlingshire ..... A
Dunblane ..... A	Glasgow ..... A	Newport ..... A	Stornoway ..... A
Dunbartonshire ..... A	Greenock ..... A	Peeblesshire ..... A	Tayport ..... A
Dumfries ..... A	Hamilton ..... A	Perth ..... A	West Lothian ..... A
		Perthshire ..... A	

The Scottish N.J.C. award on which this is based provides for variation to current rates of Female Labour, Apprentices and Trainees' wages.

The information given in this table is copyright.

ALIRO
FLOOR PRODUCTS
NON-SLIP, HARDWEARING
GRAIN-PRESTILE-SAFETY
TREADS - FLOORING
THE ADAMITE COMPANY LIMITED
MANFIELD HOUSE, STRAND, W.C.2

further costs could be saved on floor finishes. In 16 houses for old folk in Inverness, beautiful cork tiles were laid at a cost of £30 a house, but immediately the tenants got in they covered them with linoleum.

NEW BUILDINGS

Aberdeenshire.—C.C. to erect new secondary public school at Dennyduff-rd., Fraserburgh, at an est. cost of £312,000. The County Architect is Mr. Alexander McGall, 25, Union-st., Aberdeen.

Aberdeenshire.—Housing Committee approved development plan for the Aberdeen suburban area for five years 1951-56.

Bonnybridge.—Stirlingshire C.C. to erect 42 houses, for which the architect is A. J. Smith (A.), Old Infirmary-bldgs., Spittall-st., Stirling.

Carmunnock.—Plans in hand for new west of Scotland building for the Agricultural College, for which the architects are Frederick Smith & Partners (F.), 4, Regent-st., The Cross, Hamilton.

Douglas.—Plans for the erection of a new public school at Ayr-rd. are in the hands of Mr. Ian V. Paterson, 191, Ingram-st., Glasgow, C.1.

Dumbartonshire.—Plans are in the hands of their own staff of draughtsmen for new buildings to be erected at South-st., Scotstoun, by Messrs. Charles Connell & Co., Ltd., Scotstoun Shipbuilding Yard.

Dumfries.—T.C. granted permission by Dean of Guild Court to build 74 traditional type houses at New Abbey-rd. housing scheme at an est. cost of £138,000.

Eastern Regional Hospital of Scotland.—A five-year building programme for the years 1952-57 has been prepared by the Eastern Regional Hospital of Scotland based on an average annual expenditure of £400,000 for maintenance and capital works. In addition to the schemes in progess at December 31, 1951, the following major schemes are included in the programme in the priority in which they are listed:—

Alterations at East House, Dundee, for accommodation of chronic sick, estimated cost £10,000; Radiodiagnostic Department, Dundee Royal Infirmary, £70,000; central heating, Montrose Royal Mental Hospital, £60,000; electrical rewiring and conversion to A.C., Murray Royal, £19,000 (subject to verification); sewage and drainage system, Glenlomond, £20,000; extension to nurses' home, Bridge of Earn, £18,000; clinical research unit, £20,000; heating alterations, Westgreen and Gowrie House, Dundee, £12,000; second stage of development, Baldovan Institution, Dundee, £95,000; rewiring, central heating, cubicle blocks, King's Cross, Dundee, £70,600; central heating, Stracathro, £70,000; new outpatients' department, Perth Royal Infirmary, £125,000; new physiotherapy, outpatient and casualty department, Arbroath Infirmary, £35,000; heating, alterations, Murthly, £15,000; patients' recreation room, physiotherapy and dental department, Ashludie, Monifieth, £22,000; isolation block (T.B. patients), Westgreen, Dundee, £18,000; nurses' lecture block, Perth Royal Infirmary, £12,000; and extension to nurses' home (first stage), Perth Royal Infirmary, £35,000.

Edinburgh.—Corporation has a housing scheme, estimated to cost £570,000, to be erected at Drylaw Main-st. housing area. The architect is Mr. A. G. Froggie (F.), Municipal-chbrs., High-st., Parliament-sq., Edinburgh.

Fifeshire.—Plans in hand for 20 houses to be erected at Aberdour-rd., Dunfermline, for which the architect is Mr. D. H. Shaw, Municipal-chbrs., Dunfermline.

Glasgow.—Plans to be prepared for the erection at Tollcross-rd. for new warehouse buildings, new storage accommodation, etc., for the Tollcross Co-operative Society, Ltd., for which the architect is Magnus Duncan (F.), 243, Eglinton-st., Eglinton Toll, Glasgow, S.C.2.

Glasgow.—2,100 tenement houses, shops, etc., at Garthamloch, for Glasgow Corporation. City Architect, City-chbrs.

Glasgow.—Plans to be prepared for additions and alterations for the Glasgow and West of Scotland Commercial College, Pill-st., for which the architects are James Miller & Manson, A.R.A., F. & A.R.I.B.A., 347, West George-st., Blythswood, Glasgow, W.C.2.

Glasgow.—Plans in hand for new buildings at Maryhill which are to be erected by the National Gas Board. The architects are A. MacDonald & Partners, civil engineers, 3, Woodside-terr., Woodlands-rd., Charing Cross, Glasgow, W.C.

Lanarkshire.—Plans are being prepared for 44 houses to be erected at Carluke. The architect is Samuel MacColl (A.), County-chbrs., Beckford-st., Hamilton.

Lanarkshire.—Sketch plans for a new public school which will be erected on a Rutherglen site at Spittall Farm are to be prepared by Mr. William Watt (F.), County-chbrs., Albert-st., Motherwell-Wishaw.

Motherwell-Wishaw.—Corporation has approved the erection of 20 houses at Marshall-st. housing site. The architect is J. Bennett Scott (F.), Municipal-chbrs., The Cross, Motherwell-Wishaw.

Stirlingshire.—Plans in hand for a scheme of 24 houses to be erected at an est. cost of £31,000 at Easter Camuir site. The architect is William Gibson (F.), Municipal Housing Offices, West End, Falkirk.

FUTURE CONSTRUCTION

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

NOVEMBER 5.

***Frome U.D.C.**—Conversion of building into mortuary at East Hill. B. H. Parkes, 22, Christchurch-st. West. Dep. £1 1s.

NOVEMBER 6.

***Plymouth T.C.**—12 terrace houses at Argyle and Ainslie-terraces, Camels Head. H. J. W. Stirling (A.), Seymour-rd. Dep. £3 3s.

NOVEMBER 7.

***Halifax C.B.**—26 bungalows, 14 houses and 72 flats at Willowfield. Walsh, Wilkinson and Coutts, 10, Harrison-rd. Dep. £2 2s.

NOVEMBER 8.

***†Wilts C.C.**—Erection of secondary modern school at Corsham. County A., County Hall, Trowbridge. Tenders by December 12.

NOVEMBER 9.

***†Enfield U.D.C.**—44 flats, six maisonettes and seven shops at Enfield-rd. site. E. & S., 7, Little Park-gdns. Dep. £2 2s. Tenders by November 27.

***†Enfield U.D.C.**—30 houses at Addison-rd. E. & S., 7, Little Park-gdns. Dep. £2 2s. Tenders by November 27.

NOVEMBER 10.

***†Essex C.C.**—Extension to science block at South-East Essex Technical College and School of Art, Barking. H. Conolly (F.), County Hall, Chelmsford.

NOVEMBER 12.

Abram U.D.C.—14 houses at Bickershaw estate. J. C. Prestwich & Sons, Bradshawgate-chbrs., Leigh. Dep. £2 2s.

***†Birmingham T.C.**—14 bungalows and 20 maisonettes at Lennacombe-rd. City E. & S., Civic Centre. Dep. £2 2s.

Hemsworth U.D.C.—40 bungalows at Moorshutt. rd. estate. C. Earnshaw, White Hall. Dep. £2 2s. Tenders by December 10.

Horsham U.D.C.—14 housing units at new town site. E. & S., Council Offices. Dep. £2 2s.

***†Lincoln (Kesteven) C.C.**—Extensions and alterations, Grantham Earlsfield nursery. County A., Sleaford. Tenders by November 21.

NEW ANODISING
TREATMENT OF ALUMINIUM

TRANSLUCENT and PEARL FINISHES
are our exclusive treatments in addition to Sulphuric and Chromic Anodising.
MASS PRODUCTION CAPACITY

Special Service to BUILDERS of Electro-plating, Bronzing. Restoration of every kind of fitting.

JOHN WILKINS & Co LTD
231-243 ST. JOHN ST., CLERKENWELL
LONDON E.C.1.
'Phone TERminus 2176-8

***†Middlesex C.C.**—Erection of ambulance station at Chase Farm Hospital. County A., 1, Queen Anne's Gate-bldgs., Dartmouth-st., S.W.1. Dep. £2 2s. Tenders by December 10.

***Ploughley R.D.C.**—Ten houses at Chesterton. F. E. Openshaw, A.R.I.B.A., 65, St. Giles-st., Oxford. Dep. £2.

***†Plymouth City.**—Primary school, Whitleigh. Louis de Soissons & Ptns., 5, Portland-sq. Dep. £3 3s.

***Southport C.B.**—Extension to technical college. Cruickshank and Seward, 16, Princess-st., Manchester, 1.

***†Walthamstow B.C.**—20 houses and 20 garages at two sites. Boro' A., Town Hall. Dep. £2 2s. (each contract). Tenders by December 3.

***†West Riding C.C.**—Erection of new county primary school at Dalton and extensions to Maltby Grammar school. County A., Bishopgarth, Westfield-rd., Wakefield. Dep. £2 2s. Tenders by December 3.

NOVEMBER 13.

***Thurrock U.D.C.**—Eight flats, junction of Lenthall-av. and Hathaway-rd., Grays. E. & S. Dep. £2 2s.

***Wallasey C.B.**—Alterations to No. 7, Salisbury rd. to provide nursery accommodation. Boro' A., Town Hall. Dep. £1 1s.

NOVEMBER 14.

***†East Ham C.B.**—New school for girls, Plashetgr. H. A. Edwards, Town Hall.

***†Essex C.C.**—Additional accommodation, St. Osyth's Training College, Clacton-on-Sea. H. Conolly (F.), County A., Chelmsford.

***†Northumberland C.C.**—Two additional classrooms, Newbiggin C.M. School. County Architect, Newcastle-on-Tyne, 1. Dep. £2 2s.

Southport C.B.—Conversion of police station into two s.c flats. Boro' A. & T.P. Officer, Pavilion-bldgs., Lord-st.

NOVEMBER 15.

***†Chesterfield R.D.C.**—Three flats and three shops at Mickley housing estate. Council's E. and Architect, Rural Council House, Saltergate. Dep. £2 2s.

Manchester T.C.—Erection of home for aged people at Nuthurst-rd. and alterations and additions to Allandale, Bowdon, to form aged persons' home. City A., Town Hall. Dep. £1 1s. (each).

NOVEMBER 16.

***Barnes B.C.**—Rebuilding of garden boundary wall at Ranelagh-gdns. housing site. B.E. & S., Municipal Offices, Sheen-la., S.W.14.

***East Ashford R.D.C.**—Eight houses at Godmersham. Surveyor, Council Offices.

***†East Ham C.B.**—Erection of sanitary and lavatory accommodation at Salisbury school. George Whitby (A.), 14, North Audley-st., W.1. Dep. £2 2s.

***†Northumberland C.C.**—Erection of maternity and child welfare centre at Gas House-la. County A., County Hall, Newcastle-on-Tyne. Dep. £2 2s.

NOVEMBER 17.

***†Bedfordshire C.C.**—Adaptation to Medical Institute, St. Peter's-st., Bedford. County A., Bedford.

Bognor Regis U.D.C.—Construction of water main. Water Engineer & Manager, Town Hall. Dep. £2 2s.

***†Erith B.C.**—48 houses and four bungalows at Matfield-rd. B.E. & S., Town Hall. Dep. £2 2s. Tenders by December 10.

Otley U.D.C.—22 houses at Weston-la. E. & S. Dep. £2 2s.

***†Portsmouth T.C.**—Erection of Somers-rd. Primary school. City A., Municipal Offices, 1, Western-parade. Dep. £3 3s.

***Stepney Boro'.**—Repairs to 20, Ropery-st. and 28, King John-st. Chief Technical Officer for War Damage, 191-193, Commercial-rd.

NOVEMBER 19.

Chepstow R.D.C.—24 houses with road and sewer works at Caldicott. Thomas & Morgan & Partners, 23, Gelliwasted-rd., Pontypridd. Dep. £3 3s.

***Durham County Police Authority.**—Two pairs of houses, Axwell Park, Swalwell. G. R. Clayton (F.), architect to Police Authority, Court-la., Durham.

***Durham County Police Authority.**—Two police houses at High Spen. G. R. Clayton (F.), Court-la.

***Durham County Police Authority.**—Two police houses at Micle Hill. G. R. Clayton (F.), Court-la.

***Herefordshire Hospital Management Com.**—Repairs to chimney stacks at Burghill Hospital. Engineer and Clerk of Works, Burghill Hospital, Hereford.

***Sawbridgeworth U.D.C.**—16 houses, Bull Fields estate. H. G. Campion, Clerk. Dep. £2 2s.

NOVEMBER 20.

***Newbury B.C.**—Six shops and flats at Shaw estate. B.S. & Water Engineer, Municipal-bldgs.

NOVEMBER 21.

Ministry of Transport.—Construction of a new bridge over Allt A' Chumhainn at Corriehalloch in the county of Ross and Cromarty. Divisional Road Engineer, Ministry of Transport, 21, Castle-terr., Edinburgh, 1. Dep. £5.

Malton U.D.C.—28 houses at Peasay Hills-rd. Guy D. Channon, Market-st. Dep. £2 2s.

***Redcar B.C.**—12 bungalows at two sites. B.E., Municipal-bldgs. Dep. £2 2s.

NOVEMBER 22.

***Durham C.C.**—Proposed rural domestic economy centre at Houghale. G. R. Clayton (F.), Court-la.

NOVEMBER 22.

***Kidderminster B.C.**—Four shops and four flats at Meredith Green, Birchen Coppice estate. B.E. & S., 110, Mill-st. Dep. £2 2s.

***Reading C.B.**—Erection of single-storey building at Woodlands. Boro' A., Town Hall.

NOVEMBER 24.

Norton U.D.C.—Six blocks of flats at Model Farm estate. F. Vaux, 31, Quay-rd., Bridlington. Dep. £2 2s.

***Walton and Weybridge U.D.C.**—Construction of highways depot at Manor-rd. E. & S., Council Offices.

NOVEMBER 27.

Dublin T.C.—154 houses, 32 maisonettes and 12 shops at Finglas. City Treasurer, Exchange-bldgs., Lord Edward-st. Dep. £5 5s.

NOVEMBER 28.

Falmouth T.C.—Six bungalows at the Beacon. B.S., Municipal Offices. Dep. £3 3s.

NOVEMBER 29.

***Berkshire C.C.**—Adaptations at Montague-hse., Wokingham, in connection with its use as an Institute of Further Education. County A., Wiltonhse., Parkside-rd., Reading. Dep. £2 2s.

NOVEMBER 30.

***Birkenhead B.C.**—Erection of junior department of Christ Church prim. school. Leonard Barnish (F.), 58, Rodney-st., Liverpool. Dep. £2 2s.

***Essex Rivers Catchment Board.**—Erection of precast concrete framed buildings with asbestos roofing, etc., at Stanway and Rettendon. Board's Engineer, Essex Rivers-hse., Springfield-rd., Chelmsford. Dep. £2 2s.

***Weymouth and Melcombe Regis B.C.**—Erection of shelter at the Esplanade. B.E. & S., 6, Pulteney-bldgs. Dep. £2 2s.

DECEMBER 1.

***Walton and Weybridge U.D.C.**—80 houses at Brooklands housing estate. E. & S., Council Offices.

DECEMBER 3.

***Durham C.C.**—Erection of High Usworth county prim. infants' school. G. R. Clayton (F.), Court-la.

***Durham C.C.**—Improvements and general repairs at Swalwell County School and alterations at Ramshaw County School. G. R. Clayton (F.), Court-la.

***Market Harborough R.D.C.**—Eight houses at Hallaton. E. J. Kipps (L.), Council Offices, 42, High-st. Dep. £2 2s.

Wrexham B.C.—Erection of 301 dwellings on the Queen's Park estate—Southern Area. J. M. Davies, M.I.Mun.E., B.E. & S., 31, Chester-st. Dep. £3 3s.

DECEMBER 14.

***Bucks C.C.**—Proposed old people's home at Aylesbury. County A., County Offices, Walton-st., Aylesbury. Dep. £5 5s.

NO DATE.

***East Ashford R.D.C.**—12 houses and four bungalows at Aldington. Surveyor, Council Offices. Dep. £2 2s.

***Tunbridge Wells R.B.C.**—18 flats, four shops and four houses at two sites. B.S., Town Hall. Dep. £2 2s.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

NOVEMBER 19.

Leicester T.C.—City S. (Materials.)

NOVEMBER 30.

***Luton Boro'.**—Demolition of Nos. 35, 37, 39 and 39a, b, c, d and e, Park-st. and two basements of existing college. B.E. Dep. £2 2s.

DECEMBER 17.

Newport C.B.—Talybont second pipeline. W.E. & Manager, Crown-arcade, Newport, Mon. Dep. £10.

ROADS, SEWERAGE AND WATER WORKS

NOVEMBER 14.

†Wilmslow U.D.C.—Southern Watershead—surface water contract. E. & S., Council Offices, Green Hall, Wilmslow. Dep. £2 2s.

NOVEMBER 15.

Keighley B.C.—Roads and sewers at Calver-ave. housing estate. B.E., College-st.

NOVEMBER 19.

***Hornchurch U.D.C.**—Provision of sewer at Upminster Recreation Ground. E. & S., Council Offices. Dep. £2 2s.

***Hornchurch U.D.C.**—Provision of paved surrounds to children's playground. E. & S., Council Offices. Dep. £2 2s.

***Southport C.B.**—Erection of sewage ejector chamber and compressor houses at Heathfield-rd. housing estate. Boro' A. & T.P. Officer, Pavilion-bldgs., Lord-st.

Uxbridge U.D.C.—Private street works at Oak Farm estate. E. & S., 263, High-st. Dep. £2 2s.

NOVEMBER 24.

Aled R.D.C.—Bylchan and district water supply scheme. Sandford Fawcett and Partners, 53, Victoria-st., S.W.1.

Depwade R.D.C.—Provision and laying of cast-iron pipe mains. A. P. T. Cotterell and Son, 54, Victoria-st., Westminster, S.W.1. Dep. £2.

NOVEMBER 26.

Bognor Regis U.D.C.—Roads and sewers on the South Bersted housing site. E. & S., Town Hall. Dep. £2 2s.

Sunderland C.B.—Site preparation works at Castletown. B.E., Town Hall. Dep. £5 5s.

NOVEMBER 30.

Oswestry R.D.C.—Works of water supply, Contract No. 2. A. H. S. Wates, M.I.C.E., 25, Temple-row, Birmingham, 2. Dep. £3 3s.

***Wokingham R.D.C.**—Roads and sewers. Eric G. V. Hives (L.), 3, Cook-st., Reading.

NO DATE.

Oxford T.C.—Construction of sewage disposal works. City E., Town Hall.

GENERAL BUILDING WORK

(LONDON)

Battersea.—HOUSES.—B.C. Housing Committee approved the development of St. James's-dr. site providing for erection of eight houses. Plans by Boro' Architect's dept.

Bermondsey.—FACTORY.—Local planning authority has been granted to Wyatt & Co., Ltd., 67, Tanner-st., S.E.1, for proposed erection of factory at Tanner-st.

Camberwell.—DWELLINGS.—B.C. propose erection of 24 dwellings at Hanover Park and Raul-rd. and 16 dwellings at Naylor-rd. Plans by Boro' Architect's dept.

Hampstead.—SHOPS AND FLATS.—B.C. Housing Committee propose compulsory purchase order to be made for land at Finchley-rd., Fairfax-rd., Harben-rd. and Belsize-rd. Norman and Dawbarn, F.R.I.B.A., 5, Gower-st., have prepared preliminary sketch plans for provision of 22 shops and 170 flats at this site.

Lambeth.—DWELLINGS.—B.C. Housing Committee have approved plans by Booth and Ledeboer, F. & AA.R.I.B.A., 14, Lincoln's Inn Fields, W.C.2, for development of Benton's-la. Second stage development provides for 78 dwellings and third stage for 64 dwellings.

Lewisham.—HOUSES.—Finance and Rating Committee recommend loan sanction of £28,033 for erection of 16 houses at Panmure-rd. and Kirkdale. Plans by Boro' Architect's dept.

Lewisham.—FLATS AND HOUSES.—L.C.C. have granted town planning approval to F. T. Bush for erection of 12 flats and two houses at Talbot Houses and seven houses at Blackheath Vale.

Lewisham.—NEW BUILDING.—Plans by Hooper, Belfrage and Graz, A.R.I.B.A., Norfolk-house, Norfolk-st., W.C.2, for erection of new building at Lewisham High-st. and Romer-ave. have received L.C.C. planning approval.

Lewisham.—ERECTION OF SCHOOL.—T. F. Ford, F.R.I.B.A., 189, Victoria-st., S.W.1, has prepared plans for erection of primary school at Perry Vale and received local town planning approval.

Lewisham.—HOUSES.—F. L. Locke has received L.C.C. town planning approval for proposed erection of four semi-detached houses at Sydenham-rd.

Lewisham.—TELEPHONE SERVICE CENTRE.—M.O.W. have been granted L.C.C. approval for erection of telephone service centre at Lewisham High-st. Plans by Chief Architect's dept.

Lewisham.—OUT-PATIENTS' DEPARTMENT.—South-East Metropolitan Regional Hospital Board to build out-patients' department at Lewisham Hospital.

Paddington.—FLATS.—Housing and Town Planning Committee have adopted layout providing for 208 flats at Eastbourne-terrace (housing scheme). Plans by Borough Architect's dept.

(PROVINCIAL)

Abertillery.—Housing Com. propose to build 88 two-bedroomed flats at Sofrydd, Crumlin. Plans by George Davies, Council's architect.

Alnwick.—Reavell & Cahill, Lloyds Bank-chbrs., are architects to R.D.C. for erection of 200 houses at Shilbottle.

TO BUILDERS AND CONTRACTORS

The BOOK you have been waiting for!

Watch this column for further announcements

Atherton.—U.D.C. propose building 48 houses.

Barrow-in-Furness.—B.C. to receive special allocation of 50 houses for power station workers.

Bedlington.—M.L.G. & P. has approved U.D.C.'s plans for erection of another 160 houses south of Stead-la., at cost of £127,470.

Belper.—Belper Masonic Hall, Ltd., St. Mary's-chbrs., St. Mary's Gate, Derby, propose purchase and adaptation of Women's Conservative Club, Campbell-st., Belper, as Masonic Hall.

Birkenhead.—Extensions to premises of Vacuum Oil Co., Ltd. Est. cost £750,000. Architect is Sir Percy Thomas, Cardiff.

Bootle. — B.C. received allocation of further 50 houses at Sterrix-la.

Brighouse.—B.C. approved plans for rebuilding shops at Victoria-rd., Bailiffe Bridge, for S. Clegg; 6 houses at Woodhouse-la., for Iredale Bros.; extensions at Clifton Mills, for T. F. Firth & Sons, Ltd.; extensions at Brookfoot Works, for Meredith & Drew, Ltd.; extensions at River-st., for John Drury & Co., Ltd.; new offices at Thornhill Beck-la., for Woodcock & Booth; and extensions to works at Calder-st. and River-st., for D. R. Plews.

Bristol.—City architect, Council House, has prepared plans for school at Hartcliffe estate.

Clayton-le-Moors.—U.D.C. to obtain estimate for strengthening of Town Hall, £20,000 approx. Architects are Bradshaw, Gass & Hope, Bolton.

Cockermouth.—J. M. Sheppard & Partners, 38, Bedford-pl., Bloomsbury-sq., London, W.C.1, have prepared plans for two new villas, each for 40 low-grade mentally deficient patients at Dovenby Hall Hospital, for Newcastle Regional Hospital Board, Lonsdale-st., Carlisle.

Coventry.—T.C. seek loan of £22,873 for 24 flatlets at Stonebridge Highway, and propose 56 flats at Hillfields.

Coventry. — Starting date 1.3.52 for Woolworths new store, £278,000 estimated, at Broadgate.

Coventry.—T.C. to include following schemes in programme for 1952-3 and 1953-4:—Slipper and communal baths at East-st., £85,000; municipal laundry at Foleshill Baths, £50,000; central baths establishment, £350,000; slipper and swimming baths at Tile Hill, £125,000; new wholesale fruit and vegetable market, £306,128; additional lairage accommodation, public abattoir, £30,000; to improve Great Fair site before April 1, 1952, and County Engineer is to submit estimate.

Darlington.—T.C. has received sanction to borrow £17,140 for erection of houses at Springfield site and £9,165 for alterations to East Haven to provide residential accommodation. Over seven acres of land near Welbeck-ave. are to be appropriated for housing purposes by the T.C.

Daventry.—R.D.C. propose 30 dwellings at Weedon.

Dewsbury.—Crematorium proposed at Crow Nest Park for Dewsbury, Batley, Brighouse, Spenborough and Heckmondwike Councils.

Dewsbury.—E.C. approved erection of Thornhill C. of E. school. Est. cost £56,200.

Dover.—London Fancy Box Co., Ltd., Bridge-st., to erect factory at Beaconsfield-rd. and Granville-st.

Durham.—County E.C.'s building programme for next year will include Consett Secondary Grammar School, £215,000; completion of Bishop Auckland Girls' Grammar, £21,000; Newton Aycliffe County, £76,000; and Peterlee County Junior, £51,000. Additions are proposed by C.C. to Castletown County School. County A. is G. R. Clayton, Court-la., Durham.

Eastbourne.—Proposed erection of works at Brampton-rd. trading estate, for William Harden, Ltd., 38, Grove-rd.

Eccles.—B.C. to prepare plans and specifications for shops at Ellesmere Park estate.

Gateshead.—Corporation Estates & Housing Committee has approved proposals by Chief Architect, H. J. Cook, for development of central area by erection of multi-storeyed flats and maisonettes.

Gosforth.—U.D.C. surveyor, C. Wyld, has been asked to prepare bills of quantities for erection of four blocks of flats, comprising two blocks of 12 flats and two of six flats, at South Gosforth Farm.

Hartford. — M.O.E. approved expenditure of £150,000 for Phase I of College of Further Education, for C.C.

Hemel Hempstead.—Tee & Gale, architects, Moorgate, London, E.C.2, have prepared plans for factory for Rotax, Ltd.

Leeds.—Kirkstall Brewery Co., Ltd., propose new premises at Beckett Park estate.

Leigh.—T.C. have recommended site at Smallbrook-la. to M.O.F. for erection of slaughterhouse.

Liverpool.—Corporation Housing Com. approved provisional layout of 686 dwellings, 86 garages, eight shops and a school on a site of 47 acres.

Liverpool.—Ormrod & Banister, 49, Rodney-st., are architects for physiotherapy department at Walton Hospital.

Longbenton.—U.D.C. surveyor, A. E. Sweetman, has prepared plans for 18 houses and 12 old people's houses and recreation room at Holystone.

Macclesfield.—R.D.C. propose erection of 8 houses at Rainow.

Macclesfield.—R. A. Riseley has prepared plans for new factory at Hurdsfield for John Morris (Fire Snow), Ltd., Stockport.

Manchester.—T.C. propose office block at junction of Princess-st. and Mosley-st.; large new office block for Pearl Assurance Co., at junction of Clarence-st. and Princess-st. Architects are J. W. Beaumont & Sons, Danlee-bldgs., Spring-gdns.

Manchester.—Plans for cream canning works at

Silver-st. have been prepared by L. D. Clegg Morgan & Co., Queen-st., Oldham, for Unicream, Ltd.

Middlesbrough.—Plans by Garbutt, Archibald & Archibald, Albert-rd., Middlesbrough, for admission block and outpatients' dept. at St. Luke's Hospital, for Newcastle Hospital Board, have been approved. Hospital Board also propose alterations and additions to Maternity Hospital to plans by P. H. Knighton, A.R.I.B.A., Board's Chief Architect, Osborne-rd., Newcastle-on-Tyne. Town planning approval has been given for proposed school at St. Mary's College. Further 78 houses are proposed at Berwick Hills by T.C. to plans by J. A. Kenyon, Boro' E.

Middlesbrough.—Corporation Town Planning Com. approved plans for the erection of eight shops, two flats and six maisonettes at Greenway.

Newcastle-on-Tyne. — The Newcastle Regional Hospital Board, "Dunira," Osborne-rd., Newcastle, to proceed with plan for converting public assistance block at Newcastle General Hospital into psychiatric unit. Board's chief architect is P. H. Knighton, A.R.I.B.A.

Northampton.—Oxford Regional Hospital Board propose hutted wards at St. Crispin Hospital, Duston.

Oldham.—E.C. propose hall with additional classrooms at Hollins Secondary School, additional classrooms at Strinesdale Open Air School, propose Secondary Technical School at Hathershaw, £170,000 (estimated); and Junior and Infants' school at Fitton Hill, £85,000 (estimated).

Penrith.—Additions to Penrith Cottage Hospital. Architect is A. Knewstubb, St. Andrew's-chbrs., Penrith.

Portsmouth.—64 flats at Grosvenor-st., for T.C.

Ringwood and Fordingbridge.—R.D.C. have had sketch plans prepared by Frank Andrews (L.), 45, High-st., Ringwood, for erection of 12 cottages at Bransgore.

Ringwood.—Plans have been approved by local authority for training stable stud boxes at Whitsbury; and printing works for Brown & Son. Architect is Frank Andrews (L.), 45, High-st., Ringwood.

Rochdale.—B.C. to erect 180 houses at Kirkholt.

Rotherham.—B.C. propose two children's homes at Kimberworth site, 12 flats at The Yews, Doncaster-rd. B.C. approved plans for factory building at Arthur-st., for the Rotherham Forge and Rolling Mills Co., Ltd.; industrial buildings at Wortley-rd., for Robert Jenkins & Co., Ltd.; and 12 houses at Allendale-rd., for the Swinden Housing Association.

Salford.—T.C. to erect 192 flats on site between Liverpool-st. and Hodge-la., Pendleton.

Stalybridge.—Dew & Partners, architects, Market-pl., Hyde, have prepared plans for additions to works for the Bridge Colour Co., Ltd., Worthington-st.

Standish. — U.D.C. approved in principle movement eastwards of site for proposed school at Rectory-la., for Lancs C.C. U.D.C. propose block of flats and 14 lock-up garages at Collingwood-st. estate.

Stockport. — Parish Council authorities propose new secondary school at Nangreave-rd. Architects are Reynolds & Scott, Manchester.

Stone.—Wedgewood Housing Association propose erection of flats.

Stretford.—B.C. approved plans for office block at Christie-rd., for Craigielea Joinery Co., Ltd.; single-storey building for chemical manufacture at Trafford Park-rd., for F. W. Berk & Co., Ltd.; and 14 houses at Brunswick-st., Hancock-st., Highfield-rd., for W. Scott.

Sunderland.—Boro' architect, Grange-hse., Stockton-rd., has prepared plans for further additions to Fulwell fire station, for T.C. (£10,000).

Sunderland.—The Sunderland & District Nursing Association propose scheme for ante-natal clinic and nurses' recreation room. Architects are S. W. Milburn & Partners, 9, Esplanade, Sunderland.

Thornaby-on-Tees.—G. P. Stainsby, 57, High-st., Stockton-on-Tees, has prepared plans for alterations to National Reserve and Patriotic Club, Reed-st., and doctors' surgeries and caretaker's flat at Thorntree-rd., for Drs. Mackay, Ritchie and Donaldson.

Warrington.—B.C. to erect further 58 houses in connection with Winderspool Crossing Scheme.

West Bromwich.—British Typewriters, Ltd., Queen-st., propose to build factory and offices at Birmingham-rd.

West Lancs.—R.D.C. propose 12 bungalows and four one-bedroom flats at Aughton; four houses at New-la., Cressens; 12 houses at Down Holland; 30 houses at Maghull Lydiate; four at Sollom and 30 at Aintree.

Windsor.—R.D.C. have approved plans for new church at St. Luke's-rd., Old Windsor, for Rev. Father T. H. Twomey.

TENDERS

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government Departments.*

Ayr.—New motor bus garage, depot and workshop for the Western Scottish Motor Transport Co., Ltd., Kilmarnock. *The Kelvin Construction Co., Ltd., Possilpark, Glasgow, N.C.

Ayrshire.—New Kilmarnock brewery for John Walker & Sons, Ltd., at John Finnie-st., est. to cost £500,000. Plans by Distillers Co., Ltd., architectural staff, 64, Waterloo-st., Blythswood, Glasgow, W.C.2. *Melville, Dundas & Whetson, Ltd., Blythswood, Glasgow, W.C.2.

Barrow.—Shops at Ormsgill site, for B.C.: *Direct Labour, £14,831.

Battersea.—Eight houses on site of Nos. 20 and 22, St. James's-dr., for B.C.: *Direct Labour, £23,294.

Bebington.—40 houses, Mill Park estate, for B.C. L. Birch, M.I.Mun.E., Engineer, and quantities by Boro' E. & S.:—

Unit Construction Co., Ltd., Knutsford	£71,670
*Thos Warrington & Sons, Ltd., Station-rd., Ellesmere Port, Cheshire	63,396
(Subject to M.L.G. & P. approval.)	

Birkenhead.—25 houses at Prenton Dell estate, for T.C.: *Dell Investment, Ltd., Russell-rd., Runcorn, £32,163 (subject to M.O.H. approval).

Birmingham.—Extensions at Birchfield Library, for T.C.: *T. Elvins & Sons, Ltd., Soho Hill, Birmingham, £5,030.

Birmingham.—Extensions to laundry at Hereford General Hospital, for Regional Architect to Board. Donald A. Goldfinch (F.), 10, Augustus-rd. Hospital Board: *David Sherratt.

Bolton.—116 houses for B.C. at Johnson Fold estate: *Roy & Partners, 25, Cross-st., Manchester.

Bradford.—288 houses at Buttershaw, for T.C.: *Direct Labour, £415,556.

Cambuslang.—Building works on the Cairns housing site for the Lanarkshire C.C. Samuel MacColl (A.), County-chbrs., Beckford-st., Hamilton. Excavation, brick, building, joinery, carpentry and allied works, *George Wilson (Stonehouse), Ltd., Stonehouse, £178,484; Roof tiling and rough casting and allied works, *Charles Wilson (Glasgow), Ltd., Glasgow, £9,994; plumber, sanitary engineering and allied works, *Thomas Coats (Plumbers), Ltd., Motherwell-Wishaw, £25,033; electrical fittings, installations and allied works, *J. S. Denholm, Ltd., Glasgow, £4,251; painting and decorating and allied works, *James C. Sweet & Co., Ltd., Burnbank, Hamilton, £4,611; plaster, lathing, concrete and allied works, *Charles Wilson (Glasgow), Ltd., Glasgow, £9,110.

Carlisle.—Additions to Harraby infants' school: *R. C. Williamson, Ltd., Rowlands Gill, Co. Durham, £12,000.

Cheltenham.—First section of North Gloucestershire Technical College: *A. C. Billinge & Son, Winchcombe-st., £73,219.

Chester-le-Street.—100 houses at Kibblesworth; 52 houses at Pelton; and 40 houses at Longshanks-la., Birtley, for R.D.C. Council's Architect, F. Bowman, A.R.I.B.A., Estate Office, Great North-rd., Birtley, Co. Durham: *Wm. Leech (Builders), Ltd., 2, Clayton-st., Newcastle-on-Tyne 1, £139,924, £73,002, and £58,642.

Crewe.—Further 38 "Unity" houses at Wistaston Green estate, for T.C.: *Direct Labour, £50,138.

Dartford.—80 dwellings at Temple Hill Neighbourhood Unit: *Hawker & Smith, Ltd., Rochester Way, Bexley.

Deptford.—28 flats, 10 shops and 10 maisonettes over shops at New Cross-rd./Goodwood-rd. site, for B.C.: *Henry Kent (Builders), Ltd., 51, Beacon-rd., Hither Green, S.E. 13, £149,965.

Derby.—Additional accommodation at Etwall Rehabilitation Centre, for Sheffield R.H.B.: *Ford & Weston, Ltd., Derby, £63,132.

Durham.—Additions to Elemore Hall residential school, for C.C. G. R. Clayton, County Architect: *M. D. Lilley & Son, Murton, £30,072.

Enfield.—60 houses at Bullsmoor-la., for U.D.C.: *Townsend & Collins, Ltd., 2, Brick-la.

Frome.—Erection of 37 houses with site preparation work at Nunney Village, for R.D.C. Humphrey H. Goldsmith (F.), 18, Gay-st., Bath: *Plummer & Hockey, Wells-rd., Radstock, £56,091.

Glasgow.—New showrooms at Argyll-st., for Morrison Association Co., Ltd., Howard-st. Wylie, Shanks and Wylie (F. & A.), architects, 120, Blythswood-st., Blythswood-sq., Glasgow, W.C.2. *Samuel B. Allison, Ltd., Whitevale, Glasgow, E.C.

Glasgow.—New Catholic school, Cardonald, Lanarkshire, for the corporation. John MacNab (F.), architect, 129, Bath-st., Blythswood, Glasgow, W.C.2. Excavation, brick, building and allied works, *Angus M. MacDougall & Co., Ltd., £214,676; joinery, carpentry and allied work, *Walter Guthrie & Co., Ltd., £70,044; steel works, *The Crittall Manufacturing Co., Ltd., £21,232.

Gosforth.—Erection of block of three-storey flats at Windsor-ter., for U.D.C.: *William Jackson, Audley-rd., Gosforth.

Hereford.—40 houses at New Hunderton and Hinton Court estates, for T.C.: *Geo. Harris & Co., 66, St. Martins-st., Hereford.

Holborn.—10 flats at Great Ormond-st., for B.C.: *Pitchers, Ltd., £21,684.

Inverness.—Warehouse and office block for G. A. Spears, Ltd., London: *A. D. Mackellop, £20,000.

Knutsford.—40 houses at Warren-ave. estate, for U.D.C.: *Kemps (Contractors), Ltd., 54, The Downs, Altrincham, £55,604.

Leeds.—Emergency ward units at Cookridge Hospital: *Wm. Thompson & Sons, Sheepscar-st., Leeds 7.

Leicester.—Junior schools at Headland-rd., for E.C.: *Jelson, Ltd., 43, Shenton-st., Leicester.

Lewisham.—32 flats, Whitefoot-la., for B.C.:—

T. W. Driver, Ltd.	£59,680
Halse & Sons, Ltd.	59,490
Bunting Construction Co., Ltd.	58,920
Mansfield & Neil, Ltd.	57,340
W. E. & S. Rumph (Builders), Ltd.	56,830
Galbraith Bros., Ltd.	56,148
Gee, Walker & Slater, Ltd.	56,125
Kent & Sussex Contractors, Ltd.	55,560
Thomas Lowe & Sons, Ltd.	55,495
Henry Kent (Builders), Ltd.	55,207
*Wates, Ltd.	54,863

Lewisham.—13 houses on sites of Nos. 6-16, Ardmere-rd. and 54-58, Beacon-rd., for Beaver Housing Society, Ltd.:—

Messrs. D. G. Wynn, Ltd.	£36,097
Messrs. George Green, Ltd.	33,904
The County Contracting Co.	32,773
Messrs. Buries (London), Ltd.	30,659
*Messrs. Leslie Bilsby, Ltd.	29,675

¶London (Air Ministry).—Contracts to value of £500 or over for week ended October 27.

Civil engineering: Fitzpatrick & Sons, Ltd., London, E.3; J. M. Jones & Sons, Ltd., Maidenhead; Taylor Woodrow Construction, Ltd., Southall, Middx.; A. T. Brickwood, Ltd., Burton-on-the-Wolds, nr. Loughborough. *Building work and hutting*: A. Roberts & Co., Ltd., London, S.W.1; Daly & Sons, Belfast.

General maintenance work: David Nairn & Son, Ltd., Fife; F. Parkinson, Ltd., Blackpool; Geo. Shears & Sons, Ltd., Bournemouth. *Painting work*: G. and J. Seddon, Ltd., Stoke-on-Trent.

¶London (M.O.W.).—Contracts placed by M.O.W. for week ended October 20:—

London: Thames House North, Internal cleaning and painting, Barlow & Roberts, 22, John Islip-st., S.W.1. *Hertfordshire*: Government Training College, Pixmore-ave., Letchworth, Internal painting, Howley Decorators, Ltd., 140, Midland-rd., Luton. *Middlesex*: London Airport, Heath Row, Erection of telephone exchange, E. H. Burgess, Ltd., 34, Grosvenor-gdns., S.W.1. *Norfolk*: Cringleford, Erection of telephone repeater station, R. G. Carter, Ltd., Drayton, Norwich. *Northumberland*: Min./Food, Plenmiller Colliery, Haltwhistle, Erection of two standard stores, John Jackson & Sons, 72, Corporation-st., Newcastle.

Somersetshire: County Court, Queen-st., Bridgwater, Restoration of building, H. W. Pollard & Sons, Monmouth-st., Bridgwater. *Sussex*: Telephone Exchange & Repeater Station Horsham, Construction of basement, Y. J. Lovell & Son, Ltd., The Druids, Bishopril, Horsham. *Isle of Wight*: Ryde, Erection of telephone repeater station, A. E. Jukes & Son, Ltd., Newport-hse., Crocker-st., Newport. *Yorkshire*: Rothwell Haigh, nr. Leeds, Erection of telephone repeater station, Higgs & Hill, Ltd., 33, St. Paul's-st., Leeds.

¶London (War Dept.).—Works contracts placed by W.D. during week ended October 20:—

Yorkshire: Building work, Higgs & Hill, Ltd., London, S.W.8. *Nottinghamshire*: Painting, Donald Humberstone & Co., Ltd., Louth. *Cumberland*: Asphalte roofing Joseph Hardgrave Asphalte Co., York.

Middlesex: Central heating J. B. Jackson & Partners, London S.W.1. *Kent*: Painting, C. J. Else & Co. Ltd., Matlock. *Oxfordshire*: Building work, G. T. Crouch, Ltd., Kingston-on-Thames. *Hampshire*: Building work, J. Chuter (Farnborough), Ltd., Farnborough (Hants).

Somerset: Demolition work, G. Brown, Bridport. *Hampshire*: Miscellaneous, J. & H. Challis, Devizes. *Co. Down*: Painting, E. Adamson, Belfast.

Middlesbrough.—Erection of 32 houses at Berwick Hills, for T.C.: *H. Halliman, Middlesbrough, £43,564.

Middlesbrough.—Erection of 20 houses at Berwick Hills, for T.C.: *T. Pearson, Mandale-rd., Middlesbrough, £27,188.

Newcastle-under-Lyme.—Dwellings at Windermere-rd., for Corporation. 88 houses and six maisonettes: *J. Jones, Ltd.; 96 houses and four

RUBBER FLOORING

RUBBER STAIR COVERINGS AND LATEX-CEMENT FLOORS

By

RUBBALUX COMPANY

LAYING SERVICE THROUGHOUT GREAT BRITAIN

Contractors to:
Air Ministry • British Railways
British European Airways
County and Local Councils
Regional Hospital Boards

8 HOLBEIN PLACE, LONDON, S.W.1

Telephone: SLOANE 4065/4021

OUR NEW SUPER-HARD FLOORING TILES NOW SPECIFIED BY LEADING ARCHITECTS

maisonettes: *G. A. Poole, Longton-rd., Trentham; and 14 houses and eight maisonettes: *R. Navney, Shelton New-rd.

Northampton.—44 houses at Sunnyside: *T. Wilson & Son, Ltd., 67, Sheep-st.

Nottingham.—Drill hall at Trimp-rd., for Notts T. & A.F. Association: *W. J. Simms, Son & Cooke, Ltd., Nottingham.

Oldham.—Alterations to resident medical officers' quarters at District General Hospital: *Alfred Hoggins, Ltd., Oldham, £5,100.

Orrell.—24 houses at Kit Green site, for U.D.C.: *Rylance & Sons, St. James-rd., Orrell.

Penrith.—28 houses at Holmeriggs-ave., for U.D.C.: *J. Laing & Sons, Dalston-rd., Carlisle.

Portsmouth.—Outpatients' dept. at St. James's Hospital: *Roy Corke, Ltd., Rugby-rd.

Preston.—Physiotherapy dept. at Royal Infirmary: *Thos. Croft & Son, Ltd., Preston, £11,865.

Rhondda.—130 dwellings at Maerdy site, for U.D.C.: *D. J. Rees, Tram-rd., Pontypridd.

Rochdale.—Additional 36 houses at Kirkholt estate, for T.C.: *James Hobson & Sons, Ltd.

Rotherham.—Five shops, eight flats and 11 garages at Blackburn estate, for T.C.: *Beeden, Ltd.

Sheffield.—Stage 2 of Herries-rd. omnibus depot: *W. G. Robson, Ltd., Bamforth-st.

Sheffield.—Factory at Meadow-st., for F. W. Portaso: *Frank Robson, Ltd., Sheffield.

Shrewsbury.—New bus station at Upper Barker-st. car park and conversion of present bus station as car park, for T.C.: *Fletcher Estates (Hartlescott), Ltd., Shrewsbury.

Stanley.—60 houses at South Stanley, for U.D.C.: *Tarslag, Ltd., Stockton-on-Tees.

Stockport.—New operating theatre suite at Stepping Hill Hospital: *J. Gerrard & Sons, Ltd., Swinton, Manchester, £40,750.

Stockton-on-Tees.—142 houses at Fairfield Farm, for T.C.: *Moorhouse & Barker, Ltd., Thornaby-on-Tees.

Stoke Newington.—64 flats at Londesborough-rd. for B.C. *Stewart and Partners, Ltd., 105, Baker-st., London, W.1, £122,066.

Stoke-on-Trent.—Bus depot for Potteries Motor Traction Co., Ltd.: *Ball & Robinson, Ltd., Trent Bridge Works.

Stretford.—Maternity accommodation at Memorial Hospital: *Peter Hodkinson, Ltd., Manchester, £7,947.

Sutton-in-Ashfield.—24 cottage flats at Mansfield-rd. estate: *G. Shifman & Sons, Ltd., Riddings, £29,429; eight large type houses: *W. Brailsford, Sutton-in-Ashfield, £15,936.

Swindon.—Abattoir for M.O.F.: *Staverton Builders, Ltd., Staverton Bridge Mills, Totnes.

Tavistock.—18 houses at Lamerton, for R.D.C. Rossington & Fogden, architects, National Provincial Bank-chbrs., Tavistock: *J. L. Richards & Son, Ltd., 7, Bedford Park, Bere Alston, £28,971.

Uttoxeter.—24 houses at Mayfield, for R.D.C.: *O'Dair Bros., Ltd., £32,567.

Walsall.—33 houses at Blackenhall Heath site, for T.C.: *United Construction (Walsall), Ltd., £43,400; and 12 houses, Beddows-rd.: *Wm. Emery, Walsall, £16,969.

Warrington.—Four houses with lock-up shops at Martin-ave., Orford estate, for B.C.: *Osborne & Co. (Warrington), Ltd., £10,725.

Wigan.—Building of new St. Anne's church at Beech Hill has been approved by Diocesan Reorganisation Committee: *John Johnson & Sons, Caroline-st., Wigan, £39,395.

UNITE FOR STRENGTH

THE FEDERATION OF MASTER BUILDERS

will again welcome you to

STAND 436

(in the Gallery)

DURING THE

BUILDING EXHIBITION

at OLYMPIA

NOVEMBER 14-28

26, Gt. Ormond St., Holborn, W.C.1

Tel.: CHAncery 7583 (4 lines)

Telegrams: "EFEMBE, Holb., London."

BROAD-ACHESON

CELLULAR BLOCKS

once used - always used

BROAD & CO. LTD. 4 SOUTH WHARF

LONDON, W.2 · PADdington 7061.

STEEL-CRETE

SUPER-HARD DUSTLESS SURFACES

HAVE BANISHED ALL TROUBLES

WITH OLD OR NEW

FLOORS

Inspect one that has withstood

HEAVY TRUCKING FOR 30 YEARS

and consult

STEEL-CRETE LTD.

Savoy House, 115/116, Strand, London, W.C.2

Tel.: TEMple Bar 5621

THE ESSEX STEEL SCAFFOLDING Co LTD

SALES, HIRE

ERECTION

CRADLES

9A HIGH BEECH ROAD

LOUGHTON ESSEX

TEL: LOUGHTON 5022

Boyle's Patent "Air Pump" Ventilator

OVER TWO MILLION IN USE

ROBERT BOYLE & SON

VENTILATING ENGINEERS

98, HERRIES STREET, KILBURN LANE, W.10

Tel.: LADbroke 2879

WOOD BLOCK FLOORS

STEVENS & ADAMS LTD.

Victoria Works,

Point Pleasant, Wandsworth, S.W.18

W & M NEGUS LTD

Building Contractors

Station Works, King James St., Southwark, S.E.1

Telephone:— Waterloo 5474 (3 lines)

GALBRAITH BROTHERS LIMITED

BUILDERS

CONTRACTORS

& ENGINEERS

Registered Office:

61 BARTHOLOMEW CLOSE

E.C.1

MONarch 7597-8

Works:

CRAYFORD BRIDGE

KENT

Bexley Heath 5651-4